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From: Whiteman, Brian
Sent: Wednesday, December 28, 2005 3:20 PM
To: STIC-Biotech/ChemLib
Subject: seq search

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DEC 29 2005
STIC-BIOTECH/ChemLib
(STIC)

09/610,313 Barnett et al.

SEQ ID NO: 30, 31, and 32

1) search us patent and published US patent application databases

Thank you,

Brian Whiteman
Remsen, 2D14
mail box 2C18
Patent Examiner - Art Unit 1635
United States Patent and Trademark Office
(571) 272-0764

Searcher: _____
Searcher Phone: _____
Date Searcher Picked up: _____
Date completed: _____
Searcher Prep Time: _____
Online Time: _____

Type of Search
NA# _____ AA# _____
S/L: _____ Oligomer: _____
Encode/Transl: _____
Structure #: _____ Text: _____
Inventor: _____ Litigation: _____

Vendors and cost where applicable
STN: _____
DIALOG: _____
QUESTEL/ORBIT: _____
LEXIS/NEXIS: _____
SEQUENCE SYSTEM: _____
WWW/Internet: _____
Other (Specify): _____

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GenCore version 5.1.6
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OW nucleic - nucleic search, using SW model

Run on: December 30, 2005, 07:51:40 / Search time 424.699 Seconds
(without alignments)
10333.913 Million cell updates/sec

Title: US-09-610-313b-30
Perfect score: 2469
Sequence: 1 gtccgacgcaccatgcccga.....599ctgacccggtgattc 2469

Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 1.0

Searched: 1303057 seqs, 888780828 residues

Total number of hits satisfying chosen parameters: 2606114

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database: Issued Patents, NA:
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2: /cgn2_6/prodata/1/ina/5-COMB.seq:*
3: /cgn2_6/prodata/1/ina/6A-COMB.seq:*
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8: /cgn2_6/prodata/1/ina/PP-COMB.seq:*
9: /cgn2_6/prodata/1/ina/backfile61.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2052	83.1	2312	3	US-09-475-515-84
2	2025.2	82.0	2306	3	US-09-475-515-82
3	1998.4	80.9	2300	3	US-09-475-515-83
4	1969.4	79.8	4319	3	US-09-475-515-6
5	1935.8	78.4	8908	3	US-09-393-795-12
6	1858	75.3	2305	3	US-09-475-515-80
7	1831.2	74.2	2299	3	US-09-475-515-80
8	1815.6	73.5	3012	3	US-09-393-795-10
9	1678.6	68.0	4307	3	US-09-552-950-2
10	1659.4	67.2	4307	3	US-09-552-950-2
11	1651.4	66.9	4337	3	US-09-936-572-14
12	1651.4	66.9	4353	3	US-09-936-572-13
13	1651.4	66.9	4642	3	US-09-936-572-12
14	1651.4	66.9	9772	3	US-09-552-950-5
15	1592.8	64.5	8366	3	US-09-872-733A-6
16	1557.4	63.1	4338	3	US-09-872-733A-1
17	1336.4	54.1	2577	3	US-09-952-060-1
18	1336.4	54.1	2650	3	US-09-952-060-5
19	1337.4	53.8	4053	3	US-09-952-060-34
20	1335.2	53.7	2577	3	US-09-952-060-7
21	1335.2	53.7	2650	3	US-09-952-060-7
22	1325.2	49.7	38519	3	US-09-184-418C-8
23	1227.2	49.7	9010	3	US-09-184-418C-8
24	1227.2	49.7	9010	3	US-10-290-579A-8

25	1199.4	48.6	9913	3	US-09-827-688-11	Sequence 11, Appl
26	1196.2	48.4	8972	3	US-09-184-418C-9	Sequence 9, Appl
27	1196.2	48.4	8972	3	US-10-290-579A-9	Sequence 9, Appl
28	1190.6	48.2	2467	3	US-09-872-733A-3	Sequence 3, Appl
29	1189	48.2	8959	3	US-09-184-418C-11	Sequence 11, Appl
30	1189	48.2	8959	3	US-10-290-579A-11	Sequence 11, Appl
31	1165.6	47.2	8992	3	US-09-184-418C-4	Sequence 4, Appl
32	1165.6	47.2	8992	3	US-10-290-579A-4	Sequence 4, Appl
33	1132	45.8	2601	3	US-09-117-217-9	Sequence 7, Appl
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35	1132	45.8	2601	3	US-09-117-217-11	Sequence 11, Appl
36	1132	45.8	2601	3	US-09-117-217-13	Sequence 13, Appl
37	1132	45.8	2601	3	US-09-735-487-7	Sequence 7, Appl
38	1132	45.8	2601	3	US-09-735-487-9	Sequence 9, Appl
39	1132	45.8	2601	3	US-09-735-487-11	Sequence 11, Appl
40	1132	45.8	2601	3	US-09-735-487-13	Sequence 13, Appl
41	1132	45.8	4307	3	US-09-552-950-1	Sequence 1, Appl
42	1132	45.8	4307	3	US-09-552-950-1	Sequence 1, Appl
43	1132	45.8	9719	3	US-09-936-572-1	Sequence 1, Appl
44	1128.8	45.7	9050	3	US-09-184-418C-7	Sequence 7, Appl
45	1128.8	45.7	9050	3	US-10-290-579A-7	Sequence 7, Appl

ALIGNMENTS

RESULT 1
US-09-475-515-84
Sequence 84, Application US/09475515A
Patent No. 6602705
GENERAL INFORMATION:
APPLICANT: BARNETT, Susan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LIAN, Ying
APPLICANT: HARTOG, Karin
APPLICANT: LIU, Hong
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 84
LENGTH: 2312
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURES:
OTHER INFORMATION: Description of Artificial Sequence:
US-09-475-515-84

Query Match 83.1%; Score 2052; DB 3; Length 2312;
Best Local Similarity 93.6%; Pred. No. 3.4e-313;
Matches 2165; Conservative 0; Mismatches 135; Indels 12; Gaps 2;

QY	170	GGCGCAAGAGGGCCACGATGAGACTGCAACGAGCGGCGCACTTCTTCGCGC	229
DB	1	GGCGCGCGGAGAGCAACATGAAAGATTGCACTGAGACAGAGGCTTAATTTCTTCGCGC	60
QY	230	AGGACCTGGCTTCCCGGAGGCAAGCCCGGAGTTCCTCCAGCGAGCAGACCGCGCA	289
DB	61	AGGACCTGGCTTCTTCGAGGCGAGAGCCCGGAGTTCAAGACGAGCAGACCGCGCGCA	120
QY	290	ACAGCCCGCAGCAGCGGAGCTGAGTGGCGCGCG-----ACAACCCCGCAGCGAG	343
DB	121	ACAGCCCGCAGCAGCGGAGCTGAGTGGCGCGCGGAGGAGGAGGAGGAGGAGGAGG	180
QY	344	CCGCGCGGAGGCGGCGGAGGAGGAGGCGCTG-----AACTTCCCGCAGATCACTGTCGAGC	397


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; Sequence 82, Application US/09475515A
; Patent No. 6602705
; GENERAL INFORMATION:
; APPLICANT: BARBETT, Susan
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: SRIVASTAVA, Indresh
; APPLICANT: LIAN, Ying
; APPLICANT: HARTOG, Karin
; APPLICANT: LIU, Hong
; APPLICANT: GREER, Catherine
; APPLICANT: SELBY, Mark
; APPLICANT: WALKER, Christopher
; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
; FILE REFERENCE: 1621.002
; CURRENT APPLICATION NUMBER: US/09/475,515A
; CURRENT FILING DATE: 1999-12-30
; NUMBER OF SEQ ID NOS: 90
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO: 82
; LENGTH: 2306
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: FS(-).protomod.Rtopt.YM
US-09-475-515-82

Query Match      82.0%; Score 2025.2; DB 3; Length 2306;
Beet Local Similarity 93.3%; Pred. No. 5.3e-309;
Matches 2156; Conservative 0; Mismatches 138; Indels 18; Gaps 3;

QY 170 GCGGCAAGAGGCGCCACGATGAAAGACTGCAACGAGGCGCAAGCCCTCTTCCGG 229
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QY 230 AGGACCTGGCTTCCCTCCCGCAAGGCGCGGAGTTCCCGAGAGCAAGACCGGCGCA 289
DB 61 AGGACTGGCTTCCCTCGAGAGGCGGAGGCGCGAGTTGAGAGAGAGACCGGCGCA 120
QY 290 ACAAGCCCAACGCGCGGAGCTGCAAGTGCAGGCGGCGG-----ACAAGCCCGCGAGG 343
DB 121 ACAAGCCCAACGCGCGGAGCTGCAAGTGCAGGCGGCGGCGAGAACAAAGCTGAGAGAG 180
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DB 181 CGGCGCGGAGGCGCGAGGCGCGGAGCTTCAATTTCCCGAGATCAAGCTGTGGCAGC 240
QY 398 GCCCGCTGGTGAAGATCAAGTGGCGGCGAGATCAAGAGGCGCTGTGACACCGGCG 457
DB 241 GCCCGCTGGTGAAGATCAAGTGGCGGCGAGCTGCAAGAGGCGGCTGTGACACCGGCG 300
QY 458 CGGAGCAACCTGTGTGAGAGATGAGCTTGCCTGCGGCAAGTGAAGCCCGCAAGATGATG 517
DB 301 CGGAGCAACCTGTGTGAGAGATGAGCTTGCCTGCGGCAAGTGAAGCCCGCAAGATGATG 360
QY 518 GGGGCAATGGGCGCTTCAAGAGTGGCGGCAAGTGAAGCAAGATCTGATCGAGATCTGG 577
DB 361 GGGGCAATGGGCGCTTCAAGAGTGGCGGCAAGTGAAGCAAGATCTGATCGAGATCTGG 420
QY 578 GCAAGAGGCGATCGGCAACCTGTGTGATGGCGGCGAGCCCGGTGAACATCATCGGCGCA 637
DB 421 GCGCAAGGCGATCGGCAACCTGTGTGATGGCGGCGAGCCCGGTGAACATCATCGGCGCA 480
QY 638 ACATGCTGAACCGAGCTGGGCTGCAACCTTGAATTTCCCGATCAAGCCCGCATGAGACCTGC 697
DB 481 ACCTGCTGAACCGAGTGGCTGCAACCTTGAATTTCCCGATCAAGCCCGCATGAGACCTGC 540
QY 698 CGGTGAAGCTGAAGCCCGGAGTGAAGGCGGCGCAAGTGAAGCAAGTGGCGCTGACCGAGG 757
DB 541 CGGTGAAGCTGAAGCCCGGAGTGAAGGCGGCGCAAGTGAAGCAAGTGGCGCTGACCGAGG 600
QY * 758 AGAAGATCAAGGCGCTGACCGCATCTGCGAGAGATGAGAAAGAGGCGGAGATCAACA 817

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QY 878 CCAAGTGGCGCAAGCTGTGAGCTTTCGCGAGAGTGAACAAGCGACCCAGAGCTTCTGG 937
DB 721 CCAAGTGGCGCAAGCTGTGAGCTTTCGCGAGAGTGAACAAGCGACCCAGAGCTTCTGG 780
QY 938 AGGTGAGCTGGAGCATCCCCACCCCGCGGCTGAAGAAAGAAAGAGCGTGAACCGTGC 997
DB 781 AGGTGAGCTGGAGCATCCCCACCCCGCGGCTGAAGAAAGAAAGAGCGTGAACCGTGC 840
QY 998 TGAAGTGGGCGAGCGCTTCAAGCTGCTGAGCAGAGACTTCCGCAAGTACACCG 1057
DB 841 TGAAGTGGGCGAGCGCTTCAAGCTGCTGAGCAGAGACTTCCGCAAGTACACCG 900
QY 1058 CTTTCAACATCCCGAGATGACAAAGAGACCCCGGATCGGCTACCGATCAACAGTGC 1117
DB 901 CTTTCAACATCCCGAGATGACAAAGAGACCCCGGATCGGCTACCGATCAACAGTGC 960
QY 1118 TGCCCAAGGCGTGAAGAGGCGAGCCCGAGCATCTTTCAGAGAGCATGACCAAGATCTGC 1177
DB 961 TGCCCAAGGCGTGAAGAGGCGAGCCCGGATCTTTCAGAGAGCATGACCAAGATCTGC 1020
QY 1178 AGCCCTTCCGAGAGAGAACCCCGCATCTGATCTACCA-----GGCCCCCTGTAGC 1237
DB 1021 AGCCCTTCCGAGAGAGAACCCCGCATCTGATCTACCA-----GGCCCCCTGTAGC 1074
QY 1238 TGGGCAAGCACTTGAGATTCGGCCAGCACCGCGCCAAATGAGAGAGCTGGCGAAGC 1297
DB 1075 TGGGCAAGCACTTGAGATTCGGCCAGCACCGCGCCAAATGAGAGAGCTGGCGAAGC 1134
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DB 1135 TGCTGCGCTGGGCGCTTCAACACCCCGCAAGAAAGCAACAGAGAGGCGCCCTTCTGT 1194
QY 1358 GAGTGGGCTGAGAGTGAACCCCGCAAGATGAGACCTGTGACCCATCGAGCTGCCGAGA 1417
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QY 1418 AGGAGAGCTGAACCTGTAACATCCAGAAAGTGTGGGCAAGCTGGGCGAGCC 1477
DB 1255 AGGAGAGCTGAACCTGTAACATCCAGAAAGTGTGGGCAAGCTGGGCGAGCC 1314
QY 1478 AGATTAACCCCGGCAATCAAGAGTGGCGCAAGTGTGCAAGCTGTGCGCGGCGCAAGGCC 1537
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QY 1538 TGAACGAGTCTGTGCTTGAACCGAGAGGCGGAGCTGTGAGCTGGCCGAGAACCGCGAGA 1597
DB 1375 TGAACGAGTCTGTGCTTGAACCGAGAGGCGGAGCTGTGAGCTGGCCGAGAACCGCGAGA 1434
QY 1598 TCTTGGCGAGGCGCGTGAACCGCGGTACTTACGACCCCGAGAAAGAACTGTGGGCGGAGA 1657
DB 1435 TCTTGAAGGAGCGCGTGAACCGAGGTACTTACGACCCCGAGAAAGAACTGTGGGCGGAGA 1494
QY 1658 TCCAGAGAGGCGGCAACGAGCTGAGACTTACAGATCTTACAGAGAGCCCTTCAAGAAC 1717
DB 1495 TCCAGAGAGGCGGCAACGAGCTGAGACTTACAGATCTTACAGAGAGCCCTTCAAGAAC 1554
QY 1718 TGAAGACCGGCAAGTACCGCAAGATGCGCACCGGCCACCAACGAGCTGAAGACGCTGA 1777
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QY 1838 TCCGCTGCGCATTCAGAGAGAGCACTGGAGAGACTGTGGACCGGACTGTGGCAGGCGCA 1897

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Db 1675 TCAAGCTGCCATCCAGAGAGACTGGAGGCGCTGTGATGAGTACTGGACAGGCCA 1734
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 QY 1958 TGGAGAGAGAGCCCATCATCGGCGCCGAGACCTTTCTAGTGAACGGCCGCGCAACCGCG 2017
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 Db 1855 AGACCAAGATCGGCAAGGCGCGGCTTACGTGAACCGAGCGCGCGCGCAAGAAATCGTAGCC 1914
 QY 2078 TGACCGAGAGACCAACCAAGAGACCGAGCTGACAGGCGCATCGAGCTGCGCTGACAGACA 2137
 Db 1915 TGGCGGACACCAACCAAGAGACCGAGCTGACAGGCGCATCGAGCTGCGCTGACAGACA 1974
 QY 2138 GCGCGAGCGAGGTGAACATCGTGAACCGACAGCGAGTACGCGCTGGGCAATCCAGGCCC 2197
 Db 1975 GCGCGCTGAGGTGAACATCGTGAACCGACAGCGAGTACGCGCTGGGCAATCCAGGCCC 2034
 QY 2198 AGCCCGACAAAGAGAGAGCGAGCTGTGAACCAATATCGAGAGAGTGTGAAGAG 2257
 Db 2035 AGCCCGACAAAGAGAGAGCGAGCTGTGAACCAATATCGAGAGAGTGTGAAGAG 2094
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 Db 2095 AGAAGGTATACCTGAGCTGGGTGCGCGCCCAAGAGGCGATCGCGCGCAACAGAGATCG 2154
 QY 2318 ACAAGCTGTGAGCAAGGAGCATCGCAAGGTGTCTTCTGACCGGCAATCGATGCGGCA 2377
 Db 2155 ACAAGCTGTGAGCGCCGAGCATCGCAAGGTGTCTTCTGACCGGCAATCGATGCGGCA 2214
 QY 2378 TCGTATATCAACGATCACTGACGACCTGTACGTGGGCAAGCGCGCCCTAGATCGATT 2437
 Db 2215 TCGTATATCAACGATCACTGACGACCTGTACGTGGGCAAGCGCGCCCTAGATCGATT 2274
 QY 2438 AAAAGCTTCCGCGGCGTGAACCGGTTG 2469
 Db 2275 AAAAGCTTCCGCGGCGTGAACCGGTTG 2306

RESULT 3

US-09-475-515-83

Sequence 83, Application US/09475515A

Patent No. 6602705

GENERAL INFORMATION:

APPLICANT: BARNETT, Susan

APPLICANT: ZUR MEGEDE, Jan

APPLICANT: SRIVASTAVA, Indresh

APPLICANT: LIAN, Ying

APPLICANT: HARTOG, Karin

APPLICANT: LIU, Hong

APPLICANT: SELBY, Mark

APPLICANT: WALKER, Christopher

TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION

TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES

FILE REFERENCE: 1621.002

CURRENT APPLICATION NUMBER: US/09/475,515A

CURRENT FILING DATE: 1999-12-30

NUMBER OF SEQ ID NOS: 90

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 83

LENGTH: 2300

TYPE: DNA

ORGANISM: Artificial Sequence

FEATURE:

OTHER INFORMATION: Description of Artificial Sequence:

OTHER INFORMATION: FS(-).protmod.RTopt.YMMM

US-09-475-515-83

Query Match 80.9%; Score 1998.4; DB 3; Length 2300;
 Best Local Similarity 92.9%; Pred. No. 8.5e-305;
 Matches 2147; Conservative 0; Mismatches 141; Indels 24; Gaps 4;

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 Db 1 GCGGCGCGGAAAGACACCAATGAAAGATTGCACTGAGAGACAGGCTTAATTTCTTCGCG 60
 QY 230 AGACCTGCGCTTCCCGCAAGGCGCGCGAGTTTCCCGAGGAGAGAAACCGCGCA 289
 Db 61 AGACCTGCGCTTCTTCGAGGCGAGGCGCGCGAGTTTCAAGAGAGAGAGACCGCGCA 120
 QY 290 ACAGCCCTCACAGCGCGAGCTGAGTGGCGCGC-----ACACCCCTCGACCGAG 343
 Db 121 ACAGCCCTCACAGCGCGAGCTGAGTGGCGCGCGAGAGAAACAGCTTGAACGCGAG 180
 QY 344 CCGGCGCGAGCGCGACAGGCGACCTG-----ACCTTCCCGACATGACCTGTGGAGC 397
 Db 181 CCGGCGCGAGCGCGACAGGCGACCGTGAACCTTCAACTTCCCGACATGACCTGTGGAGC 240
 QY 398 GCGGCTGTGAGCATCAAGTGGCGCGCGACATCAAGAGGCGCTGTGACACCGCG 457
 Db 241 GCGGCTGTGAGCATCAAGTGGCGCGCGACATCAAGAGGCGCTGTGACACCGCG 300
 QY 458 CCGAGCAACCGTGTCTGAGAGATGAGCTGCGCGCGAGTGAAGCCCAAGATGATCG 517
 Db 301 CCGAGCAACCGTGTCTGAGAGATGAGCTGCGCGCGAGTGAAGCCCAAGATGATGATCG 360
 QY 518 GCGGCAATCGCGGCTTATCATGAAGTGGCGCGAGTACAGATCTGTATCGAGATCTGCG 577
 Db 361 GCGGCAATCGCGGCTTATCATGAAGTGGCGCGAGTACAGATCTGTGTGAGATCTGCG 420
 QY 578 GCAAGAAAGCCATCGGACACCGTGTGATCGGCGCGCACCGCGTGAACATCATCGCGCA 637
 Db 421 GCAAGAAAGCCATCGGACACCGTGTGAGTGGCGCGCACCGCGTGAACATCATCGCGCA 480
 QY 638 ACATGTGACCCAGCTGCGGCTGACACCTGAACTTCCCATGACCCCATGAGACCGTGC 697
 Db 481 ACCTGTGACCCAGATCGGCTGACACCTGAACTTCCCATGAGCCCATGAGACCGTGC 540
 QY 698 CCGTGAAGCTGAACCCCGGCAATGAGCGCGCCCAAGGTGAACAGATGGCCCTGACCGAG 757
 Db 541 CCGTGAAGCTGAACCCCGGCAATGAGCGCGCCCAAGGTGAACAGATGGCCCTGACCGAG 600
 QY 758 AGAAGATCAAGGCGCTGACCGCATCTGCGAGAGATGAGAAAGAGAGGCAATCAACA 817
 Db 601 AGAAGATCAAGGCGCTGAGATCTGACCGAGATGAGAAAGAGAGGCAATCAACA 660
 QY 818 AGATCGGCGCGGAGAACCCCTTACAACACCCCGTGTTCGCATCAAGAAAGAGACAGCA 877
 Db 661 AGATCGGCGCGGAGAACCCCTTACAACACCCCGTGTTCGCATCAAGAAAGAGACAGCA 720
 QY 878 CCAAGTGGCGGAACTGTGTGACTTCCCGGAGCTGAACAAGGCAACCAAGGACTTTCGGG 937
 Db 721 CCAAGTGGCGGAACTGTGTGACTTCCCGGAGCTGAACAAGGCAACCAAGGACTTTCGGG 780
 QY 938 AGGTGACAGTGGGATCCCCACCGCGCGGCTGAAAGAAAGAGAGCTGACCGTGC 997
 Db 781 AGGTGACAGTGGGATCCCCACCGCGCGGCTGAAAGAAAGAGAGCTGACCGTGC 840
 QY 998 TGAAGTGGGAGAGCGCTTACTTACGCTGCGCTGAGACAGAGACTTCCGCAAGTACACCG 1057
 Db 841 TGAAGTGGGAGAGCGCTTACTTACGCTGCGCTGAGACAGAGACTTCCGCAAGTACACCG 900
 QY 1058 CTTTCAAGTCCCGAGCATCAACAGAGAACCCCGGATCCGCTACCAAGTACACCGTGC 1117
 Db 901 CTTTCAAGTCCCGAGCATCAACAGAGAACCCCGGATCCGCTACCAAGTACACCGTGC 960
 QY 1118 TGGCCGAGGCTGGAAGGCGAGCGCGAGCATCTTCCAGAGGAGTGAACCAAGATCTGCG 1177
 Db 961 TGGCCGAGGCTGGAAGGCGAGCGCGAGCATCTTCCAGAGGAGTGAACCAAGATCTGCG 1020
 QY 1178 AGCCCTTCCGCGCGCGAACCCCGAGATCGTATCTACAGTACATGAGCAACCTGTACG 1237

QY 365 -----CCCTGAACCTTCCCCAGATCACCCTGTGGACAGCGCCCTGTGTGACATCAAG 418
DB 1459 CTGTATCCCTTTAACTTCCCTCAGATCACTTTTGGCAAGACCCCTCTCTCAAGTAAGA 1518
QY 419 TGGGGGCGCAGATCAAGAGGCGCTGTGACACGCGGCGCGAAGACACCGGTGTGAGG 478
DB 1519 TGGGGGCGCAGATCAAGAGGCGCTGTGACACGCGGCGCGAAGACACCGGTGTGAGG 1578
QY 479 AGATAGCCTGCGCGGAGGTGGAAGCCAGATGATCGCGGCACTCGGCTTCAATCA 538
DB 1579 AGATAGACCTGCGCGGAGGTGGAAGCCAGATGATCGCGGCACTCGGCTTCAATCA 1638
QY 539 AGGTGCGCAGTACGACCAAGATCCCGGTGTGAGATCTGCGGCGCAAGAGCCATCGGACCG 1698
DB 1639 AGGTGCGCAGTACGACCAAGATCCCGGTGTGAGATCTGCGGCGCAAGAGCCATCGGACCG 1698
QY 599 TGTGTA TGGGGCGCGCCCGGTGAACATCATCGGCGCGAATGTGTGACCGAGCTGGGCT 658
DB 1699 TGTGTA TGGGGCGCGCCCGGTGAACATCATCGGCGCGAATGTGTGACCGAGTGGGCT 1758
QY 659 GCACCTGTAACCTTCCCATCAAGCCCATCGAGACCGTCCGCTGAAGCTGAAGCCGCGCA 718
DB 1759 GCACCTGTAACCTTCCCATCAAGCCCATCGAGACCGTCCGCTGAAGCTGAAGCCGCGCA 1818
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DB 1879 AGATTCGACCGAGATGAGAGAGGCGGCAAGATCAAGATCGGCGCCCGAGAAACCCCT 1938
QY 839 ACAACACCCCGGTGTTCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 898
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QY 899 ACTTCGCGAGGTGAACAAGCGCACCCAGGACTTCTGGAAGGTGACAGCTGGGCAATCCCC 958
DB 1999 ACTTCGCGAGGTGAACAAGCGCACCCAGGACTTCTGGAAGGTGACAGCTGGGCAATCCCC 2058
QY 959 ACCCGCGCGCTGTAAG 1018
DB 2059 ACCCGCGCGCTGTAAG 2118
QY 1019 TCAAGGTGCGCTGAGACGAGACTTCCGCAAGTACACGCGCTTCAACATCCCGAGCATCA 1078
DB 2119 TCAAGGTGCGCTGAGACGAGACTTCCGCAAGTACACGCGCTTCAACATCCCGAGCATCA 2178
QY 1079 ACAACGAGACCCCGGAGATCCGCTACCAAGTCAACGCTGCGCCCGAGGCTTGAAGGCA 1138
DB 2179 ACAACGAGACCCCGGAGATCCGCTACCAAGTCAACGCTGCGCCCGAGGCTTGAAGGCA 2238
QY 1139 GCCCGAGATCTTCCAGAGAGAGATGACCAAGATCTGTGAGAGCGCTTCCGCGCGCAAC 1198
DB 2239 GCCCGAGATCTTCCAGAGAGAGATGACCAAGATCTGTGAGAGCGCTTCCGCGCGCAAC 2298
QY 1199 CCGAGATGATGATCTACAGATGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1258
DB 2299 CCGAGATGATGATCTACAGATGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2358
QY 1259 GCCAGACCGCGGCAAGTGAAG 1318
DB 2359 GCCAGACCGCGGCAAGTGAAG 2418
QY 1319 CCCCCGAG 1378
DB 2419 CCCCCGAG 2478
QY 1379 CCGACAAAGTGAACGCTGAGCGCCATGAGCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAG 1438
DB 2479 CCGACAAAGTGAACGCTGAGCGCCATGAGCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAG 2538
QY 1439 ACATCCAGAGAGCTGTGGGCAAGCTGAACCTGGGCGAGCAGATCTTACCCCGGCAATCAAG 1498

DB 2539 ACATCCAGAGAGCTGTGGGCAAGCTGAACCTGGGCGAGCAGATCTTACCCCGGCAATCAAG 2598
QY 1499 TGGCGCAGCTGTGCAAGCTGTGCGCGCGCGCAAGAGCCCTGACCGACATCTGTGCGCCCTGA 1558
DB 2599 TGAAGCACTGTGTGCAAGCTGTGCGCGCGCGCAAGAGCCCTGACCGAGATGATCCCTCTGA 2658
QY 1559 CCGAGAGGCGGAGCTGTGAGCTGAGCGGAGAACCGCGAGATCTGTGCGCGAGCCCTGTGACG 1618
DB 2659 CCGAGAGGCGGAGCTGTGAGCTGAGCGGAGAACCGCGAGATCTGTGAGAGAGCCCGGTGACG 2718
QY 1619 GCGGTACTTACAGACCCCGAG 1678
DB 2719 AGGTGTACTACAGACCCCGAG 2778
QY 1679 AGTGAACCTTACAGATCTTACAG 1738
DB 2779 AGTGAACCTTACAGATCTTACAG 2838
QY 1739 AGATGCGACCGCGCACACCAAG 1798
DB 2839 GCATGCGCGCGCGCACACCAAG 2898
QY 1799 CCATGAGAGAGATGTGTATCTGTGGGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1858
DB 2899 GCACCGAGAGAGATGTGTATCTGTGGGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2958
QY 1859 AGACCTGGGAGAGAGCTGTGTGAGCGGACTTACCTGGGCAAGAGAGAGAGAGAGAGAGAGAG 1918
DB 2959 AGACCTGGGAGAGAGCTGTGTGAGCGGACTTACCTGGGCAAGAGAGAGAGAGAGAGAGAGAG 3018
QY 1919 TCGTGAACACCCCGCTGTGTGAGAGCTGTGTGTAACAAGTGAAGAGAGAGAGAGAGAGAGAG 1978
DB 3019 TCGTGAACACCCCGCTGTGTGAGAGCTGTGTGTAACAAGTGAAGAGAGAGAGAGAGAGAGAG 3078
QY 1979 GCGCGGAGAGCTTCTTACGTGAGAGCGCGCGCGCAACCGGAGAGAGAGAGAGAGAGAGAGAG 2038
DB 3079 GCGCGGAGAGCTTCTTACGTGAGAGCGCGCGCGCAACCGGAGAGAGAGAGAGAGAGAGAG 3138
QY 2039 GCTACGTGAGACCGAGCGGAG 2098
DB 3139 GCTACGTGAGACCGAGCGGAG 3198
QY 2099 AGACCGAGCTGCAAGGAGATCCAGCTGCGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2158
DB 3199 AGACCGAGCTGCAAGGAGATCCAGCTGCGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3258
QY 2159 TGAACGAGCAGTACGCGCTGTGGGCAATCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2218
DB 3259 TGAACGAGCAGTACGCGCTGTGGGCAATCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3318
QY 2219 AGCTGTGAG 2278
DB 3319 AGCTGTGAG 3378
QY 2279 TGCCTGCGCCCAAGAGGAGATCGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2338
DB 3379 TGCCTGCGCCCAAGAGGAGATCGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3438
QY 2339 TCGGCAAGGTGTGTCTTGTGAGCGGCAATCGATGAGCGGAGATGTATCTTCAAGTGA 2393
DB 3439 TCGGCAAGGTGTGTCTTGTGAGCGGCAATCGATGAGCGGAGAGAGAGAGAGAGAGAGAG 3493

RESULT 5
US-09-393-795-12
; Sequence 12, Application US/09393795
; Patent No. 6958226
; GENERAL INFORMATION:
; APPLICANT: Gray, John T.
; APPLICANT: Mulligan, Richard C.
; TITLE OF INVENTION: Packaging Cell Lines
; FILE REFERENCE: CMC693p2A

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; CURRENT APPLICATION NUMBER: US/09/393,795
; CURRENT FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: US 60/100,063
; PRIOR FILING DATE: 1998-09-12
; PRIOR APPLICATION NUMBER: US 60/100,022
; PRIOR FILING DATE: 1998-09-11
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FASTSEQ for Windows Version 3.0
; SEQ ID NO 12
; LENGTH: 8908
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Packaging construct pHdmHgm2 comprising a codon
; OTHER INFORMATION: optimized form of HIV gag pol region
US-09-393-795-12

Query Match      78.4%; Score 1935.8; DB 3; Length 8908;
Best Local Similarity 89.2%; Pred. No. 66-295;
Matches 2137; Conservative 0; Mismatches 242; Indels 16; Gaps 4;

QY 14 TGGCGGAGGCGCATGAGCGGCGACCA---GGCCCAACATCTGTATGACGCGACGAACT 70
DB 2405 TGGCGGAGGCGCATGAGCGGCGACCA---GGCCCAACATCTGTATGAGAGGCGAACT 2464
QY 71 TCAAGGCGCGCCCAAGCGCATCATCAAGTGTCTTCACTGCGGCAAGAGGCGCAATGCGCC 130
DB 2465 TCCGCAACAGGCGCAAGACCGTGAAGTGTCTTCACTGCGGCAAGAGGCGCAATGCGCA 2524
QY 131 GCAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 190
DB 2525 AGAAGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2584
QY 191 TGAAGAGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 250
DB 2585 TGAAGAGTGTACTGTAGAGACAGGCTTA-TTTTITTTTGAAGATCTGCGCTTCCCAAG 2643
QY 251 GCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 310
DB 2644 GGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2703
QY 311 TGCAGGTGCGCGG-----CGACACACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 364
DB 2704 TTCAGGTTTGGGGAAGAGCAACAACTCCTCTCAAGACGAGAGCGCGTAAGCAAGAA 2763
QY 365 -----CCCTGAACTTCCCGCAAGATCAACCTGTGGAAGCGCGCGCGCGCGCGCGCG 418
DB 2764 CTGTATCTTTAGCTTCCCTCAAGATCACTTTTGGCGAGGAGCGCGCTGTCACAATTAAG 2823
QY 419 TGGCGCGCGCGAGATCAAGAGAGCGCTGTGGAACACCGCGCGCGCGCGCGCGCGCGCG 478
DB 2824 TCGGTGCGCGAGCTGAAGAGAGCGCGCTGTGGAACACCGCGCGCGCGCGCGCGCGCG 2883
QY 479 AGATGAGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 538
DB 2884 AGATGAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2943
QY 539 AGGTGCGCGCGAGTCAAGAGAGCGCTGTGGAACACCGCGCGCGCGCGCGCGCGCGCG 598
DB 2944 AAGTTCGCGCGAGTCAAGAGAGCGCTGTGGAACACCGCGCGCGCGCGCGCGCGCGCG 3003
QY 599 TGTGTATGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 658
DB 3004 TGTGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 3063
QY 659 GCAACCTGAACTTCCCATAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 718
DB 3064 GCAACCTGAACTTCCCATAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 3123
QY 719 TGAACGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 778
DB 3124 TGAACGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 3183

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QY 779 CCATCTGGAGAGATGAGAGAGGAGGAGGAGATCACCAAGATCGGCCCGGAGAACCCCT 838
DB 3184 AGATCTGACCGAGATGAGAGAGGAGGAGGAGATCTCCAAATATGGCCCCGAGAACCCCT 3243
QY 839 ACAACACCCCGCGTGTTCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 898
DB 3244 ACAACACCCCGCGTGTTCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3303
QY 899 ACTTCGCGAGCTGAACAGGCGAGCCCGAGACTTCTGAGAGTGTGAGTGTGGCGATCCCC 958
DB 3304 ACTTCGCGAGCTGAACAGGCGAGCCCGAGACTTCTGAGAGTGTGAGTGTGGCGATCCCC 3363
QY 959 ACCCGCGCGCGCTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1018
DB 3364 ACCCGCGCGCGCTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3423
QY 1019 TCAAGTGCCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1078
DB 3424 TCTCGTGCCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3483
QY 1079 ACAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1138
DB 3484 ACAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3543
QY 1139 GCGCGAGAGATCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1198
DB 3544 GCGCGAGAGATCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3603
QY 1199 CCGAGATGATGATCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1258
DB 3604 CCGAGATGATGATCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3663
QY 1259 GCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1318
DB 3664 GCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3723
QY 1319 CCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1378
DB 3724 CCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3783
QY 1379 CCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1438
DB 3784 CCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3843
QY 1439 ACATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1498
DB 3844 ACATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3903
QY 1499 TCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1558
DB 3904 TCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3963
QY 1559 CCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1618
DB 3964 CCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4023
QY 1619 GCGGTACTTACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1678
DB 4024 GCGGTACTTACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4083
QY 1679 AGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1738
DB 4084 AGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4143
QY 1739 AGATGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1798
DB 4144 GATTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4203
QY 1799 CCAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1858
DB 4204 CCAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4263
QY 1859 AGACCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1918

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Db 4264 AGACCTGGAGGCTCTGTGACCGAGTACTGCGAGGCCACCTGATCTCCCGAGTGGAGT 4323
Qy 1919 TGTGTAACACCCCTCTGTGTAAGCTGTGTACACAGCTGAGAGAGCCCATCATCG 1978
Db 4324 TGTGTAACACCCCTCTGTGTAAGCTGTGTACACAGCTGAGAGAGCCCATCATCG 4383
Qy 1979 GCGCGAGACCTTCTAGCTGAGACCGCGCGCCCAACCGAGAGCCAAAGATCCGCAAGGCG 2038
Db 4384 GCGCGAGACCTTCTAGCTGAGACCGCGCGCCCAACCGAGAGCCAAAGCTGGGCAAGGCG 4443
Qy 2039 GCTACGTGACCGACCGCGCGCCCAAGATCTGTAGCTGACCGAGACCAACCAACAGA 2098
Db 4444 GCTACGTGACCGACCGCGCGCCCAAGATCTGTAGCTGACCGAGACCAACCAACAGA 4503
Qy 2099 AGACCGAGCTGACGAGCCATCCAGCTGCGCTCGAGAGACAGCGGCAAGGATGAAATCG 2158
Db 4504 AGACCGAGCTGACGAGCCATCCAGCTGCGCTCGAGAGACTCCGCTGAGAGGTAATCG 4563
Qy 2159 TGAACGACAGCGAGTACCGCTGCGGATCATCCAGCGCCAGCCGACCAAGCGAGAGCG 2218
Db 4564 TGAACGACCTCCAGTATGATGATGGCATCATCCAGCGCCAGCCGACCAAGTCCAGTCCG 4623
Qy 2219 AGCTGTGTAACCGATCATCCAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTGGG 2278
Db 4624 AGCTGTGTCCAGATCATCCAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTGGG 4683
Qy 2279 TGCCGCGCCCAAGGCGATCGCGCGCAACGAGCAGATGACAAAGTGTGAGCAAGGCA 2338
Db 4684 TGCCGCGCCCAAGGCGATCGCGCGCAACGAGCAGATGACAAAGTGTGTCCGCGCA 4743
Qy 2339 TCCGCAAGTGTGTCTTCTGAGCGGATCGATGGGAGTGTGATCAACAGTA 2393
Db 4744 TCCGCAAGTGTGTCTTCTGAGCGGATCGATGGGAGTGTGATCAACAGTA 4798

RESULT 6
US-09-475-515-80
Sequence 80, Application US/09475515A
Patent No. 6602705
GENERAL INFORMATION:
APPLICANT: BARNETT, Susan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LIAN, Ying
APPLICANT: HARTOG, Karin
APPLICANT: LIU, Hong
APPLICANT: GRBER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patent In Ver. 2.0
SEQ ID NO 80
LENGTH: 2305
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:
OTHER INFORMATION: FS(+).prolnact.rtopl.ym
US-09-475-515-80

Query Match 75.3%; Score 1858; DB 3; Length 2305;
Best Local Similarity 89.0%; Pred. No. 8,6e-283;
Matches 2058; Conservative 0; Mismatches 233; Indels 19; Gaps 4;
Qy 170 GCGGCAAGAGGCGCACGATGAAGACTGCAACGAGCGCCAGCACTTCTTCCGCG 229
Db 1 GCGGCGGAGAGACACCAATGAAAGATTGCACTGAGAGACAGGCTAATTTT-AAGG 59

Qy 230 AGGACTGACCTTCCCGAGGCAAGGCGCGGAGTTCCCGAGGAGAGAACCGGCCA 289
Db 60 AAGATCTGGCTTCTTCAAGAGAGAGCGCAGGAAATTTTCTTCAAGAGACAGAGCCA 119
Qy 290 ACAAGCCCAACGAGCGAGCTGAGAGTGCAGCG-----ACAAGCCCGCAGCGAGG 343
Db 120 ACAAGCCCAACGAGAGAGCTTCAGGTTTGGGAGAGAGAAACAATCTCTCAGAAAG 179
Qy 344 CCGGCGCGAGCGCAGGCA-----CCCTGAATCTTCCCGAATGACCTGTGGAGC 397
Db 180 CAGAGCGGATGACAGAGAACTGTATCTTTAATCTTCCCAATCACTTTGGCAAC 239
Qy 398 GCCCTGTGTAGATCAAGGTGGCGCGCAGATCAAGAGAGCCCTGTGACACCGCG 457
Db 240 GACCTCTGTCAATTAAGATCGGGGGGCACTCAAGAGAGCCCTGTCTCATCAGAG 299
Qy 458 CCGACACACCGTCTGAGAGAGATGAGCTTCCCGCAAGTGAAGCCCAAGATGATCG 517
Db 300 CAGATGATACAGTATTGAGAGAAATGAAATTTGCCAGAGAAATGAGAAATGATAG 359
Qy 518 GCGGATCGGCGGCTTCAATCAAGTGGCGCAGTACAGACCAATCTGATCGAGATCTGCG 577
Db 360 GGGGATCGGGGCTTCAATCAAGGTGAGGCGTACAGACAGATACCTGTAGAAATCTGTG 419
Qy 578 GCAAGAGGCGCATCGGCAACGCTGTGATCGGCGCCACCCCGTGAACATCATCGGCGCA 637
Db 420 GACATTAAGCTATAGTACAGATTAATGAGACCTTCACTGTCAACATTAATGGAGAA 479
Qy 638 ACATGTGACCCAGCTGCGCTGACACCTGAACTTCCCATGAGCCCATGAGACCGTGC 697
Db 480 ATCTGTGACCCAGATCGGCTGACACTTGAATCTTCCCATGAGCCCTATTGAGACGAGTGC 539
Qy 698 CCGTGAAGCTGAAGCCCGGCAATGACCGGCGCCCAAGTGAACAGATGGCCCTGACCGAG 757
Db 540 CCGTGAAGTGAAGCCCGGCAATGACCGGCGCCCAAGTGAACAGATGGCCATTTGACCGAG 599
Qy 758 AGAAGATCAAGGCGCTGACCGCATCTGCGAGAGATGAGAGAGAGGCAAGATCAACA 817
Db 600 AGAAGATCAAGGCGCTGATGAGATCTGACCGAGATGAGAGAGAGGCAAGATCAACA 659
Qy 818 AGATCGGCGCGGAGAACCTTCAACACACCCCGTGTCCCATCAAGAGAGAGAGCA 877
Db 660 AGATCGGCGCGGAGAACCTTCAACACACCCCGTGTCCCATCAAGAGAGAGAGCA 719
Qy 878 CCAAGTGGCGAAGCTGTGATCTTCCGCGAGCTGAACAAGCGACCCAGAGACTTCTGGG 937
Db 720 CCAAGTGGCGAAGCTGTGATCTTCCGCGAGCTGAACAAGCGACCCAGAGACTTCTGGG 779
Qy 938 AGGTGAGCTGGGATCCCCACCGCGCGGCTGAGAGAGAGAGAGAGAGCTGACCGTGC 997
Db 780 AGGTGAGCTGGGATCCCCACCGCGCGGCTGAGAGAGAGAGAGAGAGAGCTGACCGTGC 839
Qy 998 TGAAGTGGGAGAGCGCTTACCTTACGCTGCGCTTGAAGAGAGACTTCCGCAAGTACACCG 1057
Db 840 TGAAGTGGGAGAGCGCTTACCTTACGCTGCGCTTGAAGAGAGACTTCCGCAAGTACACCG 899
Qy 1058 CTTTCAACATCTCCAGCATCAACACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1117
Db 900 CTTTCAACATCTCCAGCATCAACACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 959
Qy 1118 TGCCCAAGGCTGAG 1177
Db 960 TGCCCAAGGCTGAG 1019
Qy 1178 AGCCCTTCCGCGCGCGCAACCCCGAGATGTGATCTTCAAGAGAGAGAGAGAGAGAGAG 1237
Db 1020 AGCCCTTCCGAG 1073
Qy 1238 TGGGCAAGGAGCTTGAAGATCGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1297
Db 1074 TGGGCAAGGAGCTTGAAGATCGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1133

QY 1298 TGCTGCTGGGGCTTCAACACCCCGACAGAGAGAGCCCTTCTCTGT 1357
 DB 1134 TGCTGCTGGGGCTTCAACACCCCGACAGAGAGAGCCCTTCTCTGT 1193
 QY 1358 GAGTGGGCTTACAGAGTGTGACCCCGACAGTGTGACCCCGACAGTGTGACCCCGACAG 1417
 DB 1194 GAGTGGGCTTACAGAGTGTGACCCCGACAGTGTGACCCCGACAGTGTGACCCCGACAG 1253
 QY 1418 AGAGAGCTGACCGTGAACGACATCCAGAGCTGTGGGCAAGTGAATGGGCAAGC 1477
 DB 1254 AGAGAGCTGACCGTGAACGACATCCAGAGCTGTGGGCAAGTGAATGGGCAAGC 1313
 QY 1478 AGATCTACCCCGGACATCAAGGTGCGCCAGCTGTGCAAGTGTGCGCGGCGCAAGGCC 1537
 DB 1314 AGATCTACCGGACATCAAGGTGCGCCAGCTGTGCAAGTGTGCGCGGCGCAAGGCC 1373
 QY 1538 TGAACGACATCTGTGCTGCTGACCCGAGAGAGCCGAGCTGTGACCCGAGAGCCGAGAG 1597
 DB 1374 TGAACGAGGTATCTGCTGCTGACCCGAGAGAGCCGAGCTGTGACCCGAGAGCCGAGAG 1433
 QY 1598 TCTCTGCGAGGCGCGTGAACCGGCGGTACTAGACCCCGAGAGAGCTGTGCGCGAGAG 1657
 DB 1434 TCTCTGAGAGGCGCGTGAACCGGCGGTACTAGACCCCGAGAGAGCTGTGCGCGAGAG 1493
 QY 1658 TCCAGAGAGAGGCGCGACGACGAGTGAACCTTACAGATCTTACAGAGAGCCCTTCAAGAAC 1717
 DB 1494 TCCAGAGAGAGGCGCGACGAGTGAACCTTACAGATCTTACAGAGAGCCCTTCAAGAAC 1553
 QY 1718 TGAAGACCGGCGAGTACCGCAAGATGCGACCGGCGCGACCAACGAGTGAAGCAGCTGA 1777
 DB 1554 TGAAGACCGGCGAGTACCGCAAGATGCGACCGGCGCGACCAACGAGTGAAGCAGCTGA 1613
 QY 1778 CGAGGCGCGTGAAGAGATGCGATGAGAGAGATGCTGATCTGGGCGAGAGCCCGCAAGT 1837
 DB 1614 CGAGGCGCGTGAAGAGATGCGATGAGAGAGATGCTGATCTGGGCGAGAGCCCGCAAGT 1673
 QY 1838 TCCGCTGCGCATTCAGAGAGAGACCTGGGAGACCTGTGTGACCGACCTACTGGCAGGCCA 1897
 DB 1674 TCCGCTGCGCATTCAGAGAGAGACCTGGGAGAGCTGTGTGACCGACCTACTGGCAGGCCA 1733
 QY 1898 CCTGATCCCGAGTGGAGTGTGTGAACAACCCCCCTGTGTGAGTGTGTGATCCAGC 1957
 DB 1734 CCTGATCCCGAGTGGAGTGTGTGAACAACCCCCCTGTGTGAGTGTGTGATCCAGC 1793
 QY 1958 TGAAGAGAGAGCCCATCTGCGCGCGAGACCTTCAAGTGAACCGGCGCGCAACCGCG 2017
 DB 1794 TGAAGAGAGAGCCCATCTGCGCGCGAGACCTTCAAGTGAACCGGCGCGCAACCGCG 1853
 QY 2018 AGACCAAGATCGGCAAGAGCGCGCTTACGTGACCGACCGGCGCGCGAGAGATCTGAGCC 2077
 DB 1854 AGACCAAGATCGGCAAGAGCGCGCTTACGTGACCGACCGGCGCGCGAGAGATCTGAGCC 1913
 QY 2078 TGAACGAGACCAACCAACAGAGAGACCGAGCTGACGAGCTGTGCGCTTCAAGAGCA 2137
 DB 1914 TGAACGAGACCAACCAACAGAGAGACCGAGCTGACGAGCTGTGCGCTTCAAGAGCA 1973
 QY 2138 GCGGCGAGCGAGTGAACATGTGTGACCGACGAGTACCGCTGTGGGCAATCAACAGGCC 2197
 DB 1974 GCGGCGAGCGAGTGAACATGTGTGACCGACGAGTACCGCTGTGGGCAATCAACAGGCC 2033
 QY 2198 AGCCCGACCAAGAGCGAGCGAGCTGTGAAACGAGATCATCGAGAGCTGATCAAGAGG 2257
 DB 2034 AGCCCGACCAAGAGCGAGCGAGCTGTGAAACGAGATCATCGAGAGCTGATCAAGAGG 2093
 QY 2258 AGAAGGTGATCTGAGCTGGGTGCGCGCCCAAGAGGCAATCGGCGCAACGAGCAATCG 2317
 DB 2094 AGAAGGTGATCTGAGCTGGGTGCGCGCCCAAGAGGCAATCGGCGCAACGAGCAATCG 2153
 QY 2318 ACAAGCTGTGAGCAAGGGCATCTCGCAAGTGTCTTCCGTGACCGGATGAGTGGCGGCA 2377
 DB 2154 ACAAGCTGTGAGCAAGGGCATCTCGCAAGTGTCTTCCGTGACCGGATGAGTGGCGGCA 2213
 QY 2378 TCGTATCTACGATGAGAGACCTGTATCTGTGGCAGCGCGCGCTTACGATTCGATT 2437

DB 2214 TCGTATCTACGATGAGAGACGATCTGTACGTGGGAGGCGCGCTTACGATTCGATT 2273
 QY 2438 AAAAGCTTCCCGGGCTTACGACCCGGTGAATTC 2469
 DB 2274 AAAAGCTTCCCGGGCTTACGACCCGGTGAATTC 2305
 RESULT 7
 US-09-475-515-81
 ; Sequence 81, Application US/09475515A
 ; Patent No. 6602705
 ; GENERAL INFORMATION:
 ; APPLICANT: BARNETT, Susan
 ; APPLICANT: ZUR MEGEDE, Jan
 ; APPLICANT: SRIVASTAVA, Indresh
 ; APPLICANT: LIAN, Ying
 ; APPLICANT: HARTOG, Karlin
 ; APPLICANT: LIU, Hong
 ; APPLICANT: GREER, Catherine
 ; APPLICANT: SELBY, Mark
 ; APPLICANT: WALKER, Christopher
 ; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
 ; TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
 ; FILE REFERENCE: 1621.002
 ; CURRENT APPLICATION NUMBER: US/09/475,515A
 ; CURRENT FILING DATE: 1999-12-30
 ; NUMBER OF SEQ ID NOS: 90
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 81
 ; LENGTH: 2299
 ; TYPE: DNA
 ; ORGANISM: Artificial Sequence
 ; FEATURE:
 ; OTHER INFORMATION: Description of Artificial Sequence:
 ; US-09-475-515-81
 Query Match 74.2%; Score 1831.2; DB 3; Length 2299;
 Best Local Similarity 88.6%; Pred. No. 1.4e-278;
 Matches 2049; Conservative 0; Mismatches 238; Indels 25; Gaps 5;
 QY 170 GCGGCAAGAGAGGCGCCACGATGAGAGAGTGAACCGAGGCGCAACTTTCGCGG 229
 DB 1 GCGGCGCGCAAGAGACCAATGAAGATGACCTGAGAGACGAGCTAATTTT-AGG 59
 QY 230 AGGACCTGGCTTCCCGCGAGGCGCGGAGTTCCTTCCAGCGAGCAACCGGCGCA 289
 DB 60 AGATCTGCGCTTCTTCAAGAGAGAGCGCGAGATTTTCTTCAAGCGAGACCAAGGCCA 119
 QY 290 ACAGCCCGACAGCGCGAGCTGCAAGTGCAGCGCG-ACAAACCCCGCAGCGAG 343
 DB 120 ACAGCCCGACAGAGAGAGGCTTCAAGTGTGGGAGAGAGAAACAATCCCTCTCAGAG 179
 QY 344 CCGGCGCGAGCGCGCAGGCA-----CCTGAATTTCCCGCGAGATCACTTGTGCAAG 397
 DB 180 CAGAGCCGATGACAAAGAACTGTATCTTTAACTTCTTCCAGATCACTTGTGCAAG 239
 QY 398 GCGGCTGTGAGCATCAAGTGTGGGCGCAATCAAGAGGCGCTGTGACACCGCGCG 457
 DB 240 GACCCCTGTCAAAATGAAGATGCGGAGGAGCTCAAGAGAGGCTGTGATCAGAGAG 299
 QY 458 CCGAGCACCGGTGTGAGAGATGAGCTGCGCGCGCAAGTGAAGCCCAAGATGATCG 517
 DB 300 CAGATGATACAGTATGAGAGAAATGAATTTGCAAGAGAAATGAAGAAATGATAG 359
 QY 518 GCGGCAATCGCGCTTCAATCAAGTGTGCGCAAGTGAACCAAGATCTGATGAGATCTGCG 577
 DB 360 GGGGAGTCCGGGCTTCAATCAAGTGTGAGGAGAGTGAACCAAGATCTGATGAGATCTGCG 419
 QY 578 GCAAGAGGCAATCGGCAACGTGTGATGCGGCGCGCAACCCCGTGAACATCATCGGCGCA 637
 DB 420 GACATAAGCTATAGGTATGATTTAGTGAACCTTACCTGTTCACACTAATTTGAGAGAA 479

638 ACATGCTGACCCAGCTGGGCTGACACCTGAACTTCCCATGAGCCCATCGAGACCGTGC 697
480 ATCTGTTGACCCAGATCGGCTGACCTTGAACTTCCCATGAGCCCTATTGAGACGGTGC 539
698 CCGTGAAGCTGAAGCCCGGACATGAGCGGCCCAAGGTGAAGCATGTGACCTTGAACCGAGG 757
540 CCGTGAAGTTGAAGCCCGGAGATGAGCGGCCCAAGGTGAAGCATGTGACCTTGAACCGAGG 599
758 AGAAGATGAAGCCCTGACCCGCACTCTGCGAGAGATGAGAGAGAGAGAGAGAGATGACCA 817
600 AGAAGATGAAGCCCTGATGAGATCTGACCGAGATGAGAGAGAGAGAGAGATGACCA 659
818 AGATGCGGCCCGGAGAACCCCTTACAAACACCCCGTGTGCGCATCAAGAGAGAGAGACCA 877
660 AGATGCGGCCCGGAGAACCCCTTACAAACACCCCGTGTGCGCATCAAGAGAGAGAGACCA 719
878 CCAAGTGGCGCAAGCTGTGGACTTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGG 937
720 CCAAGTGGCGCAAGCTGTGGACTTCCGCGAGCTGAACAAGCGCACCCAGGACTTCTGGG 779
938 AGGTGACGCTGGGCACTCCCGCACCCCGCGCGCTGAAGAAGAGAGAGAGAGAGAGAGAG 997
780 AGGTGACGCTGGGCACTCCCGCACCCCGCGCGCTGAAGAAGAGAGAGAGAGAGAGAGAG 839
998 TGAAGTGGGCGACGCTACTTCAAGCGTGCCTTGAAGAGAGAGAGAGAGAGAGAGAGAG 1057
840 TGAAGTGGGCGACGCTACTTCAAGCGTGCCTTGAAGAGAGAGAGAGAGAGAGAGAGAG 899
1058 CTTTCAACATCCCGAGCATCAACAAAGAGACCCCGGACATCCGCTCAAGATCAACGTCG 1117
900 CTTTCAACATCCCGAGCATCAACAAAGAGACCCCGGACATCCGCTCAAGATCAACGTCG 959
1118 TGCCCCAGGGGCTGAGAGGGGAGCCCGAGATCTTCCAGAGAGAGAGAGAGAGAGAGAG 1177
960 TGCCCCAGGGGCTGAGAGGGGAGCCCGAGATCTTCCAGAGAGAGAGAGAGAGAGAGAG 1019
1178 AGCCCTTCCGCGCCCGGACACCCCGAGATCGTGAATCTTCAAGATCAATGAGAGAGAG 1237
1020 AGCCCTTCCGCGAGAGAGAACCCCGAGATCGTGAATCTTCAAGATCAATGAGAGAGAG 1073
1238 TGGGAGAGGACCTTGAAGATCGGCGAGAGACCCCGGACAGATGAGAGAGAGAGAGAGAG 1297
1074 TGGGAGAGGACCTTGAAGATCGGCGAGAGACCCCGGACAGATGAGAGAGAGAGAGAGAG 1133
1298 TGCTGCGCTGGGGCTTTCACACACCCCGGACAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1357
1134 TGCTGCGCTGGGGCTTTCACACACCCCGGACAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1193
1358 GGATGGGCTACGAGCTGACACCCCGGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1417
1194 CCAT-----CGAGCTGACACCCCGGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1247
1418 AGGAGAGCTGAGACCTGTGAACGATCGAAGAGCTGTGGGCAAGCTGAATGGGGCAGCC 1477
1248 AGGAGAGCTGAGACCTGTGAACGATCGAAGAGCTGTGGGCAAGCTGAATGGGGCAGCC 1307
1478 AGATTAACCCCGGACATCAAGGTGGCGGAGCTGTGAAGCTGTGGCGGCGGCGGAGAGCC 1537
1308 AGATTAACCCCGGACATCAAGGTGGCGGAGCTGTGAAGCTGTGGCGGCGGCGGAGAGCC 1367
1538 TGAACGAGCATCGTGCCCTGACCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1597
1368 TGAACGAGCATCGTGCCCTGACCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1427
1598 TCTTCGCGGAGCCCGGTGACCGGCTGTACTACGACCCCGAGAGAGAGAGAGAGAGAGAG 1657
1428 TCTTCGAGAGAGCCCGGTGACCGGCTGTACTACGACCCCGAGAGAGAGAGAGAGAGAGAG 1487
1658 TCCGAG 1717
1488 TCCGAG 1547

1718 TGAAGACCGGCAAGTACGCCAGATGCGCACCGGCCACACCAACGACGTGAAGCACTGA 1777
1548 TGAAGACCGGCAAGTACGCCAGATGCGCGCGGCCACCAACCAACGATGAAGCACTGA 1607
1778 CCGAGGCGGTGACAGAGATGCGCATGAGAGAGATCGTGAATCTTGGGGCAAGAGCCCGAAGT 1837
1608 CCGAGGCGGTGACAGAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1667
1338 TCCGCTGCGCCATCGAG 1897
1668 TCAAGCTGCCCATCGAG 1727
1898 CTTGATTCCTCCGAGTGGAGATTGTGTGAACACCCCTCTGTGTGAAGCTGTGTGAACAGC 1957
1728 CTTGATTCCTCCGAGTGGAGATTGTGTGAACACCCCTCTGTGTGAAGCTGTGTGAACAGC 1787
1958 TGAAGAGAGAGCCCATCATCGGCGCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2017
1788 TGAAGAGAGAGCCCATCATCGTGGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1847
2018 AGACCAAGATCGGCAAGGCGCGCTACGTAACGAGACCGGCGCGCGAGAGAGAGAGAGAGAG 2077
1848 AGACCAAGTGGGCAAGGCGCGCTACGTAACGAGACCGGCGCGCGAGAGAGAGAGAGAG 1907
1908 TGACCGAGAGACCAACCAAG 2137
2138 GCGGACAGAGAGTGAACATCGTGAACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2197
1968 GCGGACAGAGAGTGAACATCGTGAACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2027
2198 AGCCGAG 2257
2028 AGCCGAG 2087
2258 AGAAGGTGTACCTGAGCTGGGTGCGGCCCGGACAGAGAGAGAGAGAGAGAGAGAGAGAG 2317
2088 AGAAGGTGTACCTGAGCTGGGTGCGGCCCGGACAGAGAGAGAGAGAGAGAGAGAGAGAG 2147
2318 ACAAGCTGTGAG 2377
2148 ACAAGCTGTGAG 2207
2378 TCGTGAATCTACAGTACATGAG 2437
2208 TCGTGAATCTACAGTACATGAG 2267
2438 AAAAGCTTCCCGGGGCTAGACACCGGTGAATTC 2469
2268 AAAAGCTTCCCGGGGCTAGACACCGGTGAATTC 2299

RESULT 8
US-09-393-795-10
; Sequence 10, Application US/09393795
; Patent No. 6958226
; GENERAL INFORMATION:
; APPLICANT: Gray, John T.
; APPLICANT: Mulligan, Richard C.
; TITLE OF INVENTION: Packaging Cell Lines
; FILE REFERENCE: CMC693P2A
; CURRENT APPLICATION NUMBER: US/09/393,795
; CURRENT FILING DATE: 1999-09-10
; PRIOR APPLICATION NUMBER: US 60/100,063
; PRIOR FILING DATE: 1998-09-12
; PRIOR APPLICATION NUMBER: US 60/100,022
; PRIOR FILING DATE: 1998-09-11
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 10
; LENGTH: 3012
; TYPE: DNA

ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Codon optimized form of HIV pol coding region
FEATURE:
NAME/KEY: CDS
LOCATION: (1)...(3012)
US-09-393-795-10

Query Match 73.5%; Score 1815.6; DB 3; Length 3012;
Best Local Similarity 90.1%; Pred. No. 3.9e-276;
Matches 1970; Conservative 0; Mismatches 204; Indels 12; Gaps 2;

QY 220 TTCTTCGCGAGGAGCTGAGCTTCTCCCAAGGCGCAAGGCGCGAGTTCCCAAGGAGGAG 279
DB 1 TTTTATAGGAGAGATCTGAGCTTCTCCCAAGGAGGCGCAAGGAGATTTTCTTCAGAGGAG 60
QY 280 AACCGCGCGCAACACCCCAAGAGCGCGAGCTGAGGAGGCGG-----CGAACACCC 333
DB 61 ACCAGAGCGAACACCCCAAGAGAGAGCTTCAGGTTTGAGAGAGAGACACACTCC 120
QY 334 CGCAGCGAGCGCGCGCGCGAGCGCGCAAGGCGCA-----CCCTGAACTTCCCAAGATCAC 387
DB 121 CTCTCAG 180
QY 388 CTGTGCGAGCGCGCGCGCGCGAGATCAAGGTGCGCGCGCGAGATCAAGAGAGAGAGAGAG 447
DB 181 CTTTGGCAGCGAGCGCGCGCGCGAGATCAAGGTGCGCGCGAGATCAAGAGAGAGAGAGAG 240
QY 448 GACACCGCGCGCGAG 507
DB 241 GACACCGCGCGCGAG 300
QY 508 AAGATGATCGAGCGAGATCGAGCGAGATCAAGGTGCGCGCGAGATCAAGAGAGAGAGAGAG 567
DB 301 AAGATGATCGAGCGAGATCGAGCGAGATCAAGGTGCGCGCGAGATCAAGAGAGAGAGAGAG 360
QY 568 GAGATCTGCGCGAG 627
DB 361 GAGATCTGCGCGAG 420
QY 628 ATGCGCGCGAGAGATCGAG 687
DB 421 ATGCGCGCGAGAGATCGAG 480
QY 688 GAGACCGCGCGAG 747
DB 481 GAGACCGCGCGAG 540
QY 748 CTGACCGAGAGAGAGATCAAGGCGCGAGATCAAGGCGCGAGATCAAGGCGCGAGATCAAG 807
DB 541 CTGACCGAGAGAGAGATCAAGGCGCGAGATCAAGGCGCGAGATCAAGGCGCGAGATCAAG 600
QY 808 AAGATCAACAGATGCGCGCGAG 867
DB 601 AAGATCTCCAAATCGCGCGAG 660
QY 868 AAGGACAG 927
DB 661 AAGGACAG 720
QY 928 GACTTCTGAG 987
DB 721 GACTTCTGAG 780
QY 988 GTGACCGGTGAG 1047
DB 781 GTGACCGGTGAG 840
QY 1048 AAGTACACCGCGCTTCAACATCCCAAGATCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1107
DB 841 AAGTACACCGCGCTTCAACATCCCAAGATCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900
QY 1108 TACAAAGTGTGCGCGAG 1167

DB 901 TACAAAGTGTGCGCGAG 960
QY 1168 AAGATCTGAG 1227
DB 961 AAGATCTGAG 1020
QY 1228 GACTTCAAGTGTGAG 1287
DB 1021 GACTTCAAGTGTGAG 1080
QY 1288 CGCAAG 1347
DB 1081 CGCAAG 1140
QY 1348 CCTTCTGAG 1407
DB 1141 CCTTCTGAG 1200
QY 1408 CTGCGCGAG 1467
DB 1201 CTGCGCGAG 1260
QY 1468 TGCGCGAG 1527
DB 1261 TGCGCGAG 1320
QY 1528 GCGAAG 1587
DB 1321 GCGAAG 1380
QY 1588 AACCGCGAG 1647
DB 1381 AACCGCGAG 1440
QY 1648 GTGCGCGAG 1707
DB 1441 GTGCGCGAG 1500
QY 1708 TTCAAG 1767
DB 1501 TTCAAG 1560
QY 1768 AAGCAGCTGAG 1827
DB 1561 AAGCAGCTGAG 1620
QY 1828 ACCCGCAAGTTCGCGCGAG 1887
DB 1621 ACCCGCAAGTTCGCGCGAG 1680
QY 1888 TGCGAG 1947
DB 1681 TGCGAG 1740
QY 1948 TGTGACAG 2007
DB 1741 TGTGACAG 1800
QY 2008 GCGAAG 2067
DB 1801 GCGAAG 1860
QY 2068 ATGTGAG 2127
DB 1861 ATGTGAG 1920
QY 2128 CTGCGAG 2187
DB 1921 CTGCGAG 1980
QY 2188 ATTCAG 2247

Dh 1981 ATCCAGGCCCAAGCCGACAGTCCGAGCTGTGTCCAGATCATCAGACAGCTG 2040
Qy 2248 ATCAAGAAGAGAGAGTGTACTGAGCTGGTGCCTCCGCAAGAGGACATGGGGCAAC 2307
Dh 2041 ATCAAGAAGAGAGAGTGTACTGAGCTGGTGCCTCCGCAAGAGGACATGGGGCAAC 2100
Qy 2308 GAGCAGATCGACAAGCTGTGTGAGCAAGGAGCATCCGCAAGTGTCTTCTTGACGGCATC 2367
Dh 2101 GAGCAGGTTGACAGAGCTGTGTCCGCGCATCCGCAAGTGTCTTCTTGACGGCATC 2160
Qy 2368 GATGCGGCATCTGTATCTTACCATTA 2393
Dh 2161 GACAAAGGCCAAGAGAGACAGAGA 2186

RESULT 9

US-09-552-950-2
; Sequence 2, Application US/09552950
; Patent No. 6541248
; GENERAL INFORMATION:
; APPLICANT: Oxford Biomedica (UK) Limited
; TITLE OF INVENTION: Anti-viral Vectors
; FILE REFERENCE: 674524-2004
; CURRENT APPLICATION NUMBER: US/09/552,950
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 2
; LENGTH: 4307
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: gagpol-synbp - codon
US-09-552-950-2

Query Match 68.0%; Score 1678.6; DB 3; Length 4307;
Best Local Similarity 82.9%; Pred. No. 1.2e-254;
Matches 1968; Conservative 0; Mismatches 389; Indels 16; Gaps 4;

Qy 12 CATGGCCGAGGCCATGAGCCAGG--CCAACAGGCCCAATCTGTATGACGCGCAACA 68
Dh 1086 CTTGCTGAGGCGCATGAGCCAGTGAACCACTCCCTACATCATGATGACGCGCAACA 1145
Qy 69 CTTCAAGGCGCCCAAGGCATCATGAGTGTCAATGCGGCAAGAGGGCCATGCG 128
Dh 1146 CTTTCGAAACCAAGCAAGATGTCTAAGTCTTCACTGTGTGCAAGAGAGGACACAGC 1205
Qy 129 CCGCAACTGCGCGCGCCCGCCGCAAGAGGCTGTGAAATGTGCGCAAGAGGCGCACCA 188
Dh 1206 CCGCAACTGCGAGGCGCCCTAAGAAAGAGGCTGTGAAATGTGCGCAAGAGGCGCACCA 1265
Qy 189 GATGAAGACTGTACACCGAGCGCCAGGCCAATTCTTCCGCAAGACTTGGCTTCCCA 248
Dh 1266 GATGAAGACTGTACCGAGAGACAGGCTTA--TTTATTAGGAAAGATCTGGCTTCTTCA 1324
Qy 249 GGGCAAGGCGCGGAGTTCCTCCAGGAGAGAAACCGGCGCAACAGGCCCAACAGCGGGA 308
Dh 1325 AGGGAAAGCCAGAGGAAATTTCTTCAGAGCAAGACCGGCGCAACAGGCCCAACAGCGGGA 1384
Qy 309 GCTGCAAGGT-----GCGCGGCAACAACCCCGCAGAGGCGCGGCGCGCAAGG 362
Dh 1385 GCTTCAAGTCTGTGGGTTCGCAACAACCTCCCTCCGAAAGAGAGCGCAAGCGCAAGG 1444
Qy 363 CA-----CCTGAACCTTCCCAAGATCACTCTGTGCAAGCGCCCTTGTGAGCATCA 416
Dh 1445 CACGCTGTCTTCAACTTCCCTCAGGTCAAGCTTGTGCAAGCGCAAGCGCTGTACATCA 1504
Qy 417 GGTGGGCGGCGAGATCAAGAGGCGCTGTGCAACCGGCGCGCAACACCGTGTGGA 476
Dh 1505 GATCGGGGGGAGCTCAAGAGGCTCTCTGTGACCGGAGAGACGACACCGTGTGGA 1564
Qy 477 GGAAGATGAGCTGCGCGCAAGTGAAGCCCAAGATGATCGGCGGATCGGCGGCTTCA 536

Dh 1565 GAAATGTCTGTGCAAGCGCGCTGGAAGCCGAATGATCGGGGAAATCGCGCTTTCAT 1624
Qy 537 CAAGTCCGCAAGTACAGACAGATCTGATGAGATCGGGCAAGAGGCATCGGAC 596
Dh 1625 CAAGTCCGCAAGTACAGATCTGATGAGATCGGGCAAGAGGCATCGGAC 1684
Qy 597 CGTGTATGAGGCGCCCAACCCCGTGAACATCATCGGCGCAATGTGTGACCCAGCTGG 656
Dh 1685 CGTGTGTGTGGGCCCAACCCCGTGAACATCATCGGCGCAACCTGTGTGACGAGATCG 1744
Qy 657 CTGCACTCTGAACCTTCCCATCAGCCCCATGGAACGTTGCCGTGAAGCTGAAGCCCG 716
Dh 1745 TTGCACTCTGAACCTTCCCATCAGCCCCATGGAACGTTGCCGTGAAGCCCG 1804
Qy 717 CATGGAAGGCGCCCAAGGTGAAGAGTGGCCCTTGAAGGAGGAAGATCAAGGCGTAC 776
Dh 1805 GATGAGAGGCGCCCAAGGTGAAGAGTGGCCCTTGAAGGAGGAAGATCAAGGCGTAC 1864
Qy 777 CGCATCTGCGAGGAGATGAGAGAGGCGCAATCAACAGATCGGCGCCGAGAACCC 836
Dh 1865 GAGATTTTGACAGAGATGAGAGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1924
Qy 837 CTACACAACCCCGTGTTCGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 896
Dh 1925 GTACACAACCCCGTGTTCGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1984
Qy 897 GGAATTCGCGAGAGTGAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 956
Dh 1985 GGAATTCGCGAGAGTGAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2044
Qy 957 CCAACCCGCGCGCTGGAAG 1016
Dh 2045 GCAACCCGCGAGAGTGAAG 2104
Qy 1017 CTTGAGGTGCGCTTGAAG 1076
Dh 2105 CTTGAGGTGCGCTTGAAG 2164
Qy 1077 CAAAG 1136
Dh 2165 CAAAG 2224
Qy 1137 CAGCCGAGAGATCTTCAAG 1196
Dh 2225 CTTCTCCGAGATCTTCAAG 2284
Qy 1197 CCGGAGATGTGATCTTCAAG 1256
Dh 2285 CCGGAGATGTGATCTTCAAG 2344
Qy 1257 CCGGAG 1316
Dh 2345 AGGGCAG 2404
Qy 1317 CACCCGAG 1376
Dh 2405 CACACCGAG 2464
Qy 1377 CCGGAG 1436
Dh 2465 CCTGAG 2524
Qy 1437 CGAATCAAG 1496
Dh 2525 CGAATCAAG 2584
Qy 1497 GGTGCGAG 1556
Dh 2585 GGTGCGAG 2644
Qy 1557 GACGAG 1616


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Db      1985 GGAATTCGCGAGCGGAAACAAGCCGACAGACCTTCGGAGGTTGAGCTGGGCAATCCC 2044
Qy      957  CCACCCCGCGCGCTGAAAGAAAGAGAGCGTGAACCTGCTGGACCTGCGGACCGCTTA 1016
Db      2045 GCACCCCGCAGGCGCTGAAAGAAAGAAATCCGTGACCGTACCTGGAATGGGTGATGCTTA 2104
Qy      1017 CTTCAGCGTGCCTCCCTGAGCAGAGACTTCGCGAAGTACACCGCTTCACCATCCCGAGCAT 1076
Db      2105 CTTCCTCGTTCCCTTGGACGAGACTTCGAGAAAGTACCTGCTTCACCATCCCTTGAT 2184
Qy      1077 CAACACGAGACCCCGCGCATCCGCTACAGTACACACGTGCTGCCAGGCTGGAAGG 1136
Db      2165 CAACACGAGACACCGGGGATTCCGATATCAGTACACAGTGTGCCCCCGAGGCTGGAAGG 2224
Qy      1137 CAGCGCCAGCATCTTCCAGACAGATGACCAAGATCCTGGAGCCCTCCCGGCCCGAA 1136
Db      2225 CTCTCCCGCAATCTTCCAGAGTATGATGACCAAAATCTGAGAGCTTTCGCAACAGAA 2284
Qy      1197 CCGCGAGATCGTGAATCTACAGTACATGAGCAGACCTGTAAGTGGGACAGCCTGAGAT 1256
Db      2285 CCGCGACATCGTCACTATCATGATATGATGATGATGATGATGATGATGATGATGATGAT 2344
Qy      1257 CGGCGACGACCGCGCGCAAGATCGAGAGCTGCGACAGCCTGCTGCGCTGCTTCCAC 1316
Db      2345 AGGGGACGACCGGACCAAGATCGAGAGCTGCGACAGCCTGTTGAGGTGGGACCTGAC 2404
Qy      1317 CACCCCGCAACAAGAGCACAAGAGAGCCCTCTCTGATGATGAGCTACAGAGTGA 1376
Db      2405 CACACCCCAACAAGAGCACAAGAGAGCCTCTCTCTGATGATGAGGTGATGAGAGTGA 2464
Qy      1377 CCGCGACAGATGAGACCGTGAAGCCATCGAGCTGCGCGAGAGAGAGAGAGAGAGAGAG 1436
Db      2465 CCGTGAACAATGAGACCGTGAAGCCATGATGCTGCGAGAGAGAGAGAGAGAGAGAGAG 2524
Qy      1437 CGACATCCAGAGCTGTGAGGCAAGCTGAACCTGAGCGACCAAGATCTAACCCCGCATCA 1496
Db      2525 CGACATCAGAGAGCTGTGAGGCAAGCTGAACCTGAGCGACCAAGATCTAACCCCGCATCA 2584
Qy      1497 GGTGCGGCAAGCTGTGAGGCAAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 1556
Db      2585 GGTGAGGCAAGCTGTGAGGCAAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 2644
Qy      1557 GACCGAGGAGCGCGAGCTGAGAGCTGCGCGAGAACCGCGAGATCTGCGCGAGCGCGTGA 1616
Db      2645 AACCGAGGAGCGCGAGCTGAGAGCTGCGCGAGAACCGCGAGATCTGCGCGAGCGCGTGA 2704
Qy      1617 CGGCGTGTACTACGACCCCGAGCAAGAGCTGTGAGCGCGAGATCTGCGAGAGCGCGTGA 1676
Db      2705 CGGCGTGTACTATGACCCCTCGAAGAGCTGTATGCGCGAGATCTGCGAGAGCGCGTGA 2764
Qy      1677 CCACTGAGACTTACAGAGATCTACAGAGAGCTTTCAGAGAACTGAGAGAGCGCGAGTACG 1736
Db      2765 CCACTGAGACTTATCAGATTTTACAGAGAGCTTTCAGAGAACTGAGAGAGCGCGAGTACG 2824
Qy      1737 CAAGATGAGCAGCGCGCACCAACAGAGAGCTGAGAGAGCTGAGCGCGCTGAGAGAGAT 1796
Db      2825 CCGAGTGAAGGAGTCCGACACTTACAGAGAGCTGAGAGAGCTGAGCGCGCTGAGAGAGAT 2884
Qy      1797 CGCGATGAGAGCATCTGTATCTGAGGAGAGACCCCGCAAGTTCCGCTGCCATCCAGAA 1856
Db      2885 CACGACGAGAGCATCTGTATCTGAGGAGAGACTCTTAAAGTTCAAGCTGCCATCCAGAA 2944
Qy      1857 GGAAGACTGAGAGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1916
Db      2945 GGAAGACTGAGAGAGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3004
Qy      1917 GTTCGTGAAGACCCCGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAT 1976
Db      3005 GTTCGTGAAGACCCCGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAT 3064
Qy      1977 CGGCGCGAGAGACTTCTTACAGTGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2036

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Db      3065 GAGGCGCGGAAACCTTCTACGTGATGAGGCGCGCTTACAGAGAGAGAGAGAGAGAGAG 3124
Qy      2037 CGGCTAGTGAACGAGCGGGGCGGCAAGAGATGAGAGCTGAGCGGAGACCAACCA 2096
Db      3125 CGATAGCTGACATAACGGGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3184
Qy      2097 GAGAGCGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2156
Db      3185 GAGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3244
Qy      2157 CGTGAACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2216
Db      3245 CGTGAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3304
Qy      2217 CGAGCTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2276
Db      3305 CGAGCTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3364
Qy      2277 GGTGCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2336
Db      3365 GGTACCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3424
Qy      2337 CATCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2369
Db      3425 CATCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3457

RESULT 11
US-09-936-572-14
; Sequence 14, Application US/09936572
; Patent No. 6783981
; GENERAL INFORMATION:
; APPLICANT: UDEN, MARK
; APPLICANT: MITROPHANOUS, KYRIACOS
; TITLE OF INVENTION: ANTI-VIRAL VECTORS
; FILE REFERENCE: 07883/0137
; CURRENT FILING DATE: 2001-12-11
; PRIOR FILING DATE: 2000-03-17
; PRIOR APPLICATION NUMBER: PCT/GB00/01002
; PRIOR FILING DATE: 2000-03-17
; PRIOR APPLICATION NUMBER: GB 9906177.2
; NUMBER OF SEQ ID NOS: 73
; SOFTWARE: Patent In Ver. 2.1
; SEQ ID NO 14
; LENGTH: 4327
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: PSYNGP4-codon
; OTHER INFORMATION: Optimised HIV-1 gagpol with 20bp of the leader
; OTHER INFORMATION: sequence of HIV-1
US-09-936-572-14

Query Match 66.9%; Score 1651.4; DB 3; Length 4327;
Best Local Similarity 82.2%; Pred. No. 2.2e-250;
Matches 1951; Conservative 0; Mismatches 406; Indels 16; Gaps 4;

Qy      12  CATGCGGAGGCGCATGAGCCAGG--CAACAGGCGCCAACTCTGATGAGCGCGAGCA 68
Db      1106 CTTGCTGAGGCGCATGAGCCAGGAGGAGCACTCGCTACATCTGATGAGCGCGAGCA 1165
Qy      69  CTTCAAGGCGCCCAAGGCGCATCAAGTGTCTTCAATGCGGCAAGAGAGGCGCATGCGC 128
Db      1166 CTTTCGGAACCAAGCAAGATCTCAAGTGTCTTCAATGCTGAGCAAGAGAGGACACAGC 1225
Qy      129  CCGCACTGCGCGCGCGCGCGCAAGAGAGGCTGTGAGAGTGCAGCAAGAGAGGCGCA 188
Db      1226 CCGCACTGCAAGGCGCGCGCGCGCGCAAGAGAGGCTGTGAGAGTGTGAAAGAGAGACCA 1285
Qy      189  GATGAAGACTGCAACCGAGCGCGAGCGCACTTCTTCGCGAGAGACTGTGCTTCCCGCA 248
Db      1286 AATGAAGATTGTACTGAGAGACAGGCTAA-TTTTAAAGGAGAGATGTGCGCTTCCCA 1344

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QY 249 GGGCAAGCCCGGAGTTCCCAAGAGCAAGACCGGCCCAACAGCCCCCACTAGCCGCA 308
Db 1345 AGGGAAAGCCAGAGAAATTTCTTCAGAGCAAGACCAAGCCCAAGCCCCACAGAAAGAGA 1404
QY 309 GCTGCAAGTGGCGG-----CGAACCCCCCGAGCGAGCGCGCGCGAGCGGCAAGG 362
Db 1405 GCTTCAGGTTTGGGAGAGAACAACTCCCTTCAGAAAGAGAGCGGATGACAAAGG 1464
QY 363 CA-----CCCTGAACCTTCCCAAGATCACTCTGTGAGAGCGCCCCCTGTGAGCATCA 416
Db 1465 AACTGTATCTTTAGCTTCCCTCAGATCACTTTGGAGAGCAACCCCTGTCTACAAATAA 1524
QY 417 GGTGGCGGCGCAAGATCAAGAGAGCCCTGTGAGCAACCGCGCGAGCAACCTGTCTGA 476
Db 1525 GATAGGGGGGAGCTCAAGAGAGCTCTCTGAGCAACCGAGAGCAAGCAACCTGTCTGA 1584
QY 477 GAGATGAGCTTGCCTGGCAAGTGAAGCCCAAGATGATTCGGCGGCATTCGGCGCTTAT 536
Db 1585 GAGATGTCTGTGCGAGGCGCTGAGAGCCGAAAGATGATTCGGGGAAATCGCGGTTTCA 1644
QY 537 CAAGGTGCGCCAGTACAGACAGATCTGATCGAGATTCGCGCAAGAAAGCCATCGCAC 596
Db 1645 CAAGGTGCGCCAGTATGACAGATCTCTCATGAAATCTGCGGCAACAGGCTATGCTAC 1704
QY 597 CGTGTGATCGGCCCCCAACCCCTGTGAAATCATCGGCGGCAACATGCTGACCCAGCTGG 656
Db 1705 CGTGTGTGGGCCCCCAACCCGTCACATCATCGGAGCAACCTGTTGACCAATCGG 1764
QY 657 CTGCAACCTGAACTTCCCATCAGCCCCATCGAGACCGTGGCCGTGAAAGTGAAGCCGG 716
Db 1765 TTGCAACGCTGAACCTTCCCATTAAGCCCTATCGAGACGATACGATGAAAGCTGAACCCG 1824
QY 717 CATGAGCGGCCCCCAAGGTGAAGAGTGGCCCTGACCGAGAGAAAGATCAAGCCCTGAC 776
Db 1825 GATGAGCGGCGCAAGGTCAAGCATGAGCATTTGACAGAGAGAAAGATCAAGGACTGAT 1884
QY 777 CGCCATCTGCGAGAGATGAGAGAGGAGCAAGATCAACAAATCGGCCCCGAGAACCC 836
Db 1885 GAGAGTTTGCACAGAGATGAGAAAGAGAAATCTTCAGAAATGGGCTGAGAACCC 1944
QY 837 CTACAAACACCCCGTGTTCGCACTCAAGAAAGAGACAGACCAAGTGGCGCAAGTGT 896
Db 1945 GTACAAACACCGCGTGTTCGCACTCAAGAAAGAGACTCGAGAAATGCGCAAGTGT 2004
QY 897 GGAATTCGCGAGCTGAACAAGCGACCGAGACTTCTGGAGAGTGCACATGGGCAATCC 956
Db 2005 GGAATTCGCGAGCTGAACAAGCGACCGAGACTTCTGGAGAGTGCACATGGGCAATCC 2064
QY 957 CCACCCCGCGGCTGAGAAAGAGAGCGTGAACGCTGAGAGTGGGCGAGCCCTTA 1016
Db 2065 GACCCCGGAGGCTGAGAAAGAAATCCGTGACCGTACCTGAGATGTGGTGAATCCCTA 2124
QY 1017 GTTCAGCGTGGCCCTGAGAGAGACTTTCGCAAGTACACCGCTTCAACATCCCAAGAT 1076
Db 2125 GTTCTCCGTTCCCTGAGAGAGACTTTCAGAAAGTACATGCTTCAACATCCCTGAT 2184
QY 1077 CAACAACGAGACCCCGGAGATCCGCTACCAAGTACAAAGTGGTGGCCCAAGGCGTGAAGG 1136
Db 2185 CAACAACGAGACCCCGGAGATTCGATATCAAGTACAAAGTGGTGGCCCAAGGCGTGAAGG 2244
QY 1137 CAGCCCAAGATCTTCCAGAGCAAGTGAACCAAGATCTGAGACCTTCGCGCCCGCA 1196
Db 2245 CTCTCCCGCAATCTTCCAGAGTGAAGTGAACCAAAATCTGAGCTTTCGCAAAAGAA 2304
QY 1197 CCCCAGATGTGATTTACAGTACATGAGACGCTGTACGTGGGCGAGCACTGAGAT 1256
Db 2305 CCCCAGATGTGATTTACAGTACATGAGTGAATGATGATGATGATGATGATGATGAT 2364
QY 1257 CGGCGAGACCCGCGCAAGTGAAGAGCTGGCGAGCAACCTGCTGCGCGGCTTCA 1316
Db 2365 AGGCGAGACCCGCAAGTGAAGAGCTGGCGAGCAACCTGTTAAGGTGGGACTGAC 2424

QY 1317 CACCCCGAGCAAGAGCAACGAGAGAGCCCTTCTCTGTGATGGGCTACAGCTCA 1376
Db 2425 CACACCGAGCAAGAGCAACGAGAGAGCTTCTCTCTGTGATGGGCTTACAGCTCA 2484
QY 1377 CCCCAGAGTGAACCGTGCAGCCATCGAGCTTCCGAGAGAGAGAGTGAACCTGAA 1436
Db 2485 CCTGACAAATGAGACCGTGCAGCCATCTGTCTGCGAGAGAAAGCAGCTGATGTA 2544
QY 1437 GCAATCCAGAAAGCTGTGGCAAGTGAACCTGGGCGAGCCAGATCTTCCCCGATCA 1496
Db 2545 GCAATACAGAAAGCTGTGGGAAAGTGAACCTGGGCGAGTGAATTTACCAAGGATTA 2604
QY 1497 GGTGGCGAGCTGCAAGCTGTGGCGGCGGCAAGGCGCTGACGATGTGCTCCCT 1556
Db 2605 GGTGAGGAGCTGTCAAACTCTCCGCAACCAAGGCACTCAGAGAGTATCCCT 2664
QY 1557 GACCGAGAGCGCGAGCTGAGCTGGCGGAGAACCGAGATCTTCCGAGCCGTGCA 1616
Db 2665 AACGAGAGCGCGAGCTGAGCTGGCGGAGAAACGAGAGATCTTAAAGAGCCGTGCA 2724
QY 1617 CGGCGTGTATACAGACCCAGAGAGACTGTGGCGAGATCCAGAAAGAGGCGCA 1676
Db 2725 CGGCGTGTATGAGCCCTCAGAGACTGATGCGCGAGATCCAGAAAGAGGCGCAAG 2784
QY 1677 CCAATGACCTTACAGATCTACAGAGCCCTTCAAGACCTGAAGACCGGCAAGTAC 1736
Db 2785 CCAATGACCTTACAGATCTTACAGAGCCCTTCAAGACCTGAAGACCGGCAAGTAC 2844
QY 1737 CAAGTGGCAACCGGCCACCAACAGAGTGAAGAGCTGACCGAGCGGTGAGAAAGT 1796
Db 2845 CCGAGTGGAGGGTGCACACTACAGAGTCAAGAGCTGACCGAGCGGTGAGAAAGT 2904
QY 1797 CGCCATGAGAGCATGTGATCTGGGCAAGACCCCAAGTTCGCTGCTGCTCAAGAA 1856
Db 2905 CACCAACGAAAGCATGTGATCTGGGAAAGCTCTTAAGTTCAGCTGCTGCTCAAGAA 2964
QY 1857 GAGAGCTGGGAGACTGTGTGAGCCGACTACAGAGCGCTGAGATCCCGAGTGGGA 1916
Db 2965 GAGAGCTGGGAGAACTGTGTGAGCAAGATTTGGGAGGCGACCTGATTTCTGAATGGGA 3024
QY 1917 GTTGTGAAACACCCCTCTGTGAGCTGTGTATCAAGCTGAGAGAGAGCCCATCAT 1976
Db 3025 GTTGTGAAACACCCCTCTGTGAGCTGTGTATCAAGCTGAGAGAGAGCCCATCAT 3084
QY 1977 CGGCGCGAGACTTTCATGAGAGCGGCGGCAACCGGAGACCAAGATGGCAAGC 2036
Db 3085 GGGCGCGGAACTTTCATGAGAGTGGGCGGCTTAAGAGGAGACTTAAGCTGGCAAGC 3144
QY 2037 CGGCTACGTACCGACCGGCGCGGCAAGATCTGAGCTGAGCCGAGACCAAGCA 2096
Db 3145 CGGATACGTACCTAACCGGCGGCAAGAAAGTGTACACCTGACAGACCAAGCA 3204
QY 2097 GAAAGCCGAGCTGAGGCGCATCAGCTGGCCCTGAGAGACAGCGAGCGAGTGAACAT 2156
Db 3205 GAAAGCTGAGCTGAGGCGCATTTACTGCTTTGAGAGACTGGGCTGAGAGTGAACAT 3264
QY 2157 CGTGAACGACAGTACGCTTGGGCACTACAGGCGCAAGCCGAGCAAGAGCGAGAG 2216
Db 3265 CGTGAACGACTGATGAGTGGGCGCATTTCAAGGCCAGGACCAAGAGTGAAGTGC 3324
QY 2217 CGAGCTGTGAAACAGATATGAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTG 2276
Db 3325 CGAGCTGTGAAACAGATATGAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTG 3384
QY 2277 GGTGCGCGGCCCAAGAGGCGTGGGCGCAACGAGAGATCGAACAGCTGTGAGCAAGG 2336
Db 3385 GGTACCGGCGCCAAAGGAGTGGGCGCAATGAGAGAGTGCACAGAGTGTCTCGGCTG 3444
QY 2337 CATCGCAAGTGTCTTCTGAGCGGCAATGCA 2369
Db 3445 CATCAGAAAGTGTATCTCGAATGGCAATGCA 3477

RESULT 12
US-09-936-572-13
Sequence 13, Application US/09936572
Patent No. 6783981
GENERAL INFORMATION:
APPLICANT: UDEN, MARK
APPLICANT: MITROPHANOUS, KYRIACOS
TITLE OF INVENTION: ANTI-VIRAL VECTORS
FILE REFERENCE: 078883/0137
CURRENT APPLICATION NUMBER: US/09/936,572
CURRENT FILING DATE: 2001-12-11
PRIOR APPLICATION NUMBER: PCT/GB00/01002
PRIOR FILING DATE: 2000-03-17
PRIOR APPLICATION NUMBER: GB 9906177.2
PRIOR FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 73
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 13
LENGTH: 4353
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: pSYNGF3-codon
OTHER INFORMATION: Optimised HIV-1 gagpol with leader sequence from
OTHER INFORMATION: the major splice donor
US-09-936-572-13

Query Match 66.9%; Score 1651.4; DB 3; Length 4353;
Beet Local Similarity 82.2%; Pred. No. 2.2e-250;
Matches 1951; Conservative 0; Mismatches 406; Indels 16; Gaps 4;
QY 12 CATGAGCCGAGGCGCATGAGCCAGG---CCAGCAGGCGCCAACTCTGATGACGCGCA 68
DB 1132 CTGAGCTGAGGCGCATGAGCCAGGCGCACTCCGCTACATCATGATGACGCGCGAA 1131
QY 69 CTTCAAGGCGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGGCGCAATCGC 128
DB 1192 CTTTCGGAACCAAGCAAGATGCTCAAGTGTCTTCAACTGTGGCAAGAGGCGACACAGC 1251
QY 129 CCGCACTGCG 188
DB 1252 CCGCACTGCG 1311
QY 189 GATGAAGACTGCACTGAGCG 248
DB 1312 AATGAAGATTGATCTGAGAGACAGGCTTA--TTTTTGAAGAAATCTGGCTTCCACA 1370
QY 249 GGGCAAGCGCGCGAGTCCCGAGGACAGAACCGCGCAACAGCCCGCACGCGCGCA 308
DB 1371 AGGGAAGCGCGAGGAAATTTTCTTCAGAGCAGACGAGCCAAAGCCCGACAGAGAGA 1430
QY 309 GCTGCAAGTGGCGG-----CGAACCCCGCGAGCGAGCGCGCGCGCGCGCGCGCGCG 362
DB 1431 GCTTCAGGTTTGGGAGAGACAACACTCCCTCTCAGAAAGAGAGCGGATGAGCAAGG 1490
QY 363 CA-----CCCTGAACCTCCCGCAGATCAACCTGTGGAGCGCGCGCGCGCGCGCGCG 416
DB 1491 AACTGTATCTTACCTTCCCTCAGATCACTTTTGGAGGAGCCCTCTGTCACATTA 1550
QY 417 GGTGGCGCGCAGATCAAGAGGCGCTGTCGACACCGCGCGCGCGCGCGCGCGCGCGCG 476
DB 1551 GATAGGGGGGCGAGCTCAAGAGGCGCTCTCTGACACCGGAGCAGACGACCGTGTGGA 1610
QY 477 GAGAGTAGCTCCCGCGAAGTGAAGCCCAAGTAGTCCGCGCGCATCGCGCGCTTAT 536
DB 1611 GAGAGTAGCTTGTTCGAGGCGCGCTGGAACCGGAAGTAGTCCGCGGAAATCGCGGTTTAT 1670
QY 537 CAAGGTGCGCAGTACGACGAGTCTGATGAGATCGCGCGAAGAGGCGCATCGGAC 596
DB 1671 CAAGGTGCGCAGTACGACGAGTCTGATGAGATCGCGCGAAGAGGCGCATCGGAC 1730
QY 597 CGTGTGATCGGCG 656
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DB 1731 CGTGTGTGGGCGCCCAACCCGTCACATCATCGACGCAACCTGTTGACGAGATCGG 1790
QY 657 CTGACCCCTGAATCTTCCCATCAGCCCATCAGAGACCGTGCGCGCGTGAAGCCCGG 716
DB 1791 TTGACGCTGAATCTTCCCATCAGCCCATCAGAGACCGTGCGCGCGTGAAGCCCGG 1850
QY 717 CATGACG 776
DB 1851 GATGACG 1910
QY 777 CGCATCTGAGAGAGATGAGAGAGGCGCGAGATCAACAGATCGCGCGCGCGCGCGCG 836
DB 1911 GGAATTTTGAACAAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1970
QY 837 CTACACACCCCGCGTGTTCGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 896
DB 1971 GTACACACCGCGCGTGTTCGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2030
QY 897 GGACTTCGCGAGCTGAACAAGCGCACCCAGAGACTTCTGGAGGTGACCTGGCATCC 956
DB 2031 GGACTTCGCGAGCTGAACAAGCGCACCCAGAGACTTCTGGAGGTGACCTGGCATCC 2090
QY 957 CCACCCCGCGCGCTTGAAG 1016
DB 2091 GCACCCCGCGAGGCTGAAG 2150
QY 1017 CTTCAAGGTCGCGCGTGAACGAGAGACTTCGCAAGTACACCGCTTCAACATCCCGAGCAT 1076
DB 2151 CTTTCGCGTTCCTTGAACGAGAGACTTCAAGAGATACCTGCTTCAACATCCCTTGAT 2210
QY 1077 CAACACAGAGACCCCGCGCATCGCTACAGTACAGCTGTGCGCGCGCGCGCGCGCGAG 1136
DB 2211 CAACACAGAGACCGCGGAGATTCGATACAGTACAGTGTGCGCGCGCGCGCGCGAGAG 2270
QY 1137 CAGCGCGAGACTTTCAG 1196
DB 2271 CTTCCCGCAATCTTCAAGATGACATGACCAAAATCTTGAGGCTTTCGCAACAGAA 2330
QY 1197 CCGCGAGTGTGATCTACAGTACATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1256
DB 2331 CCGCGAGTGTGATCTACAGTACATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2390
QY 1257 CCGCGAG 1316
DB 2391 AGGCGAG 2450
QY 1317 CACCCCGAG 1376
DB 2451 CACACCGAG 2510
QY 1377 CCGCGAG 1436
DB 2511 CCGCGAG 2570
QY 1437 CAGATCCAG 1496
DB 2571 CAGATCCAG 2630
QY 1497 GGTGCGCGAGTGTGAG 1556
DB 2631 GGTGAG 2690
QY 1557 GACCGAG 1616
DB 2691 AACCGAG 2750
QY 1617 CCGCGTGTATCAACAG 1676
DB 2751 CCGCGTGTATCAACAG 2810
QY 1677 CCAGTGACCTTACAGATCTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1736
DB 2811 CCAGTGACCTTACAGATCTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2870
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Dh 2440 CTTCTCCGTTCCCTGAGCAGAACTTCAGGAAGTACACTGCTTCAACATCCCTTCGAT 2499
Qy 1077 CAACAAAGAGACCCCGGCAATCCGCTACCAAGTACAAAGTGTGCCCCAGAGGCTGAAAGG 1136
Db 2500 CAACAAAGAGACCCCGGGAATTCAGTATCACTGACCACTGCTGCCCGAGGCTGAAAGG 2559
Qy 1137 CAGCCGACGACTCTTCCAGAGCAGATGACCAAGATCTGAGAGCCCTTCCGCGCCGAA 1196
Db 2560 CTCCTCCGCAATCTTCCAGATGACATGACCAAAATCTGAGCTTTCGCCAAACAGAA 2619
Qy 1197 CCCCAGATGATGATCTACCAAGTACATGACGACCTGTACCTGAGGACGACCTGAGAT 1256
Db 2620 CCCCAGATGATGATCTACCAAGTACATGATGACCTGTGAGCTGAGCTGATCAGAGAT 2679
Qy 1257 CCGGCAAGACCGGCGCAAGATGAGGAGCTGCGGACGACCTGCTGCGCTGAGGCTTAC 1316
Db 2680 AGGGGACAGACCGCACCAAGATGAGAGACTGCGGACGACCTGTTGAGGTGAGGACTGAC 2739
Qy 1317 CACCCCGACAAAGACACCAAGAGAGCCCTTCTCTGTGATGAGCTACAGAGCTGCA 1376
Db 2740 CACACCGACAAAGAGACACCAAGAGAGCTTCTCTGTGATGAGCTTACAGAGCTGCA 2799
Qy 1377 CCCCAGACATGAGACCTGACAGCCCATGAGCTGCCCCAGAAAGAGAGCTGACCTGCA 1436
Db 2800 CCGTGAACAATGAGACCTGACAGCTTATGCTGCTGACAGAGAAAGACAGCTGACTGCA 2859
Qy 1437 CAGACATCCAGAAAGCTGTGAGGCAAGCTGACCTGAGGCGACGACGATCTACCCCGCATCA 1496
Db 2860 CAGACATCCAGAAAGCTGTGAGGCAAGCTGACCTGAGGCGACGACGATCTACCCCGCATCA 2919
Qy 1497 GGTGCGCAGCTGTGACAGCTGTGCGCGCGCCAGAGCCCTGACCGACATGTCGCTT 1556
Db 2920 GGTGAGGAGAGCTGTGACAACTCTCTCGCGGAAACAGAGGACCTGACAGAGGATTCCT 2979
Qy 1557 GACCGAGAGAGCGCGAGCTGAGCTGAGCTGCGGAAACCTGCAATCTGCGGAGCCCTGCA 1616
Db 2980 AACCGAGAGAGCGCGAGCTGAGCTGAGCTGCGGAAACCTGCAATCTGCGGAGCCCTGCA 3039
Qy 1617 CCGGCTGTACTACGACCCCGACAGAGACCTGTGCGGAGATCCAGAGCAGGCGCAAGA 1676
Db 3040 CCGGCTGTACTACGACCCCTCCAGAGACCTGTATCCCGAGATCCAGAGCAGGCGCAAG 3099
Qy 1677 CCACTGACACTACAGATCTACAGAGACCCCTTCAAGAACTGAAAGACCGGACAGTACGC 1736
Db 3100 CCACTGACACTACAGATCTTACAGAGACCCCTTCAAGAACTGAAAGACCGGACAGTACGC 3159
Qy 1737 CAAGATGCGACCCGCGCACCAACAGACGTTGAGAGCACTGACCGAGCCCTGTCAGAGAT 1796
Db 3160 CCGGATGAGGCGGTGCGCACCTAACGATCAAGCACTGACCGGAGCCCTGTCAGAGAT 3219
Qy 1797 CCGCACTGAGAGCACTGATCTGTGAGGAGACCCCGCAAGTTCCGCTGCGCATCAGAA 1856
Db 3220 CACCACTGAGAGCACTGATCTGTGAGGAGACCTCTAAGTTCAAGCTGCCATCAGAA 3279
Qy 1857 GAGAGCTGTGAGAGCTGTGAGACCACTACTGTGAGGCGCACCTGATCCCGAGTGGGA 1916
Db 3280 GAGAACTGTGAGAGCTGTGAGAGATTTGGAGGCGCACCTGATTCCTGAGTGGGA 3339
Qy 1917 GTTCTGTAAACCCCCCTGTGTGAGCTGTGTAACTGACGTGAGAGAGAGCCATCAT 1976
Db 3340 GTTCTGTAAACCCCCCTGTGTGAGCTGTGTAACTGAGTGTGAGAGAGAGCCATCAT 3399
Qy 1977 CCGGCGCGAGAGCTTCTACGTGAGAGGCGCGCAACCGCGAGACCAAGATCTGGCAAGG 2036
Db 3400 GCGGCGCGAGAGCTTCTACGTGAGAGGCGCGCTAACAGGAGACTTAAGTGGGCAAGG 3459
Qy 2037 CCGCTACGTGACCGAGCGGCGCGAGAGAGTCTGAGCTGACCGAGACCAACCA 2096
Db 3460 CCGATACGTCTACTAACCGGCGAGACAGAGTGTCTACCTCTGACCAACCAACCA 3519
Qy 2097 GAGAGCGAGCTGTGAGGCGCATTCAGCTGCGCTGTGAGAGACAGGCGACGAGGTGAAT 2156
Db 3520 GAGAGCTGAGCTGTGAGGCGCATTCAGCTTGTGAGAGCTGTGAGGCTGTGAGAT 3579
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Qy 2157 CGTGACCGACAGACGATACGCGCTGTGAGCATATCCAGGCCAGGCCAGACAGAG 2216
Db 3580 CGTGACAGACTCTACAGATGATGCGCTGTGAGCATATCCAGGCCAGGCCAGAGTGAATC 3639
Qy 2217 CAGACTGTGAAACCAATCATCGAGCAGCTGTATCAAGAGAGAGAGTGTACTGTAGCTG 2276
Db 3640 CAGACTGTGATCAATGATCATCGAGCAGCTGTATCAAGAGAGAGAGTGTACTGTAGCTG 3699
Qy 2277 GGTGCGCGCGCGACAGAGGAGATCGGCGGCAACGAGCAGATGAGCAAGCTGTGAGCAAGG 2336
Db 3700 GGTACCGCGCGCGACAGAGGAGATGCGCGCAAGAGAGGTCAGCAAGCTGTGAGCTG 3759
Qy 2337 CATCCGCAAGGTGCTGTTCTGTGACGCGCATGCA 2369
Db 3760 CATCAGAGAGGTGCTATTCGTGATGAGCATGCA 3792

RESULT 14
US-09-552-950-5
; Sequence 5, Application US/09552950
; Patent No. 6541248
; GENERAL INFORMATION:
; APPLICANT: Oxford Biomedica (UK) Limited
; TITLE OF INVENTION: Anti-Viral Vectors
; FILE REFERENCE: 674524-2004
; CURRENT APPLICATION NUMBER: US/09/552,950
; CURRENT FILING DATE: 2000-04-20
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 5
; LENGTH: 9772
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: pSYNGP
US-09-552-950-5

Query Match 66.9%; Score 1651.4; DB 3; Length 9772;
Best Local Similarity 82.2%; Pred. No. 2,36-250;
Matches 1951; Conservative 0; Mismatches 406; Indels 16; Gaps 4;

Qy 12 CATGCGCGAGGCGCATGAGCCAGG---CCACGAGCGCCAACTCTGATGACGCGCAGAA 68
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Qy 69 CTTCAAGGCGCCCAAGCGCATCATCAAGTCTTCAACTGTGCGGCAAGAGAGGCGCATGCG 128
Db 2253 CTTTCGAAACCAACGCAAGATGTCAGTGTCTTCAACTGTGCGCAAAAGAGGCGCACAGC 2312
Qy 129 CCGCAACTGCGCGCGCCCGCCGCAAGAGAGGCTGTGAAAGTGCGGCAAGAGAGGCGCACCA 188
Db 2313 CCGCAACTGCGAGGCGCCCTTGAAGAAAGGCGCTGTGAAAGTGTGAAAGAGAGAGCACCA 2372
Qy 189 GATGAAGACTGCAACGAGCGCGCAGGCCAATCTTCCGCGAGAGACTGTGCTTCCCA 248
Db 2373 AATGAAGATTGTACTGAGAGACAGGCTTA-TTTTGAAGGAAGATCTGCGCTTCCACA 2431
Qy 249 GGGCAAGCGCGCGAGTCTCCAGAGAGCAAAACCGCGCCCAACGCGCCCAACGCGCGGA 308
Db 2432 AGGGAAGCGCGAGGAATTTCTTCAAGACAGACCAAGAGCCAAAGCGCCACCAAGAGGA 2491
Qy 309 GCTGAGGTGTGCGCG-----GACCAACCGCGCAGCGAGCGCGCGCGCGAGCGCGCAAGG 362
Db 2492 GCTTCAGGTTTTGGGAGAGAGCAACACTCCTCTCAGAAAGCAGAGGCGGATAGCAAG 2551
Qy 363 CA-----CCCTGAATTCCTCCAGATCAACCTGTGAGAGCGCCCTGTGTAGCATCA 416
Db 2552 AACTGTATCTTTTGAAGCTTCCCTCAGATCATCTTTTGGAGAGGAGCCCTGTGTACATTA 2611
Qy 417 GGTGCGCGCGCAATCAAGAGAGGCGCTGTGAGACAGCGCGCGCGCAACCACTGTGTGGA 476
Db 2612 GATAGGCGGCGAGCTCAAGAGGCGCTTCTGTGAGACCGGAGCAAGCAACCTGTGTGGA 2671
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; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 6
; LENGTH: 8366
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: Description of Artificial Sequence: DNA sequence
; OTHER INFORMATION: of the construct pCMVgagpolBKKan containing a CMV
; OTHER INFORMATION: promoter, a HIV gag/pol gene and a kanamycin
; OTHER INFORMATION: resistance gene
US-09-872-733A-6

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Query Match      64.5%; Score 1592.8; DB 3; Length 8366;
Best Local Similarity 80.7%; Pred. No. 3.5e-241;
Matches 1914; Conservative 0; Mismatches 442; Indels 16; Gaps 4;

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QY 14 TGGCCGAGGCGCATGAGCCAGCCACGAC---GCCAATCTCTGATGCGAGCGCAACT 70
DB 1857 TGGCCGAGGCGCATGAGCCAGGCTGACGAACTCGGCGACCATATGATGCGAGAGGCAACT 1916
QY 71 TCAGGGGCCCCAAGCGCATCATCAAGTCTTCACTGCGGCAAGGAGGGGCCAATCGGCC 130
DB 1917 TCCGGAACACAGCGGAAGATCGTCAAGTCTTCAATTGCGCAAGAGAGGCAACCGCCA 1976
QY 131 GCAACTGCGCGCGCCCCCGCAAGAGGCGCTGCGAAGTGCAGCAAGAGGCGCACAG 190
DB 1977 GGAATGCGCGGCGCCCCCGGAAGAGGCGCTGTGGAATGTGGAAGAGAGACCCAAA 2036
QY 191 TGAAGACTGCAACGAGGCGCCAGGCGCACTTCTCCGAGAGACCTGGCCCTTCCCGCAG 250
DB 2037 TGAAGATTTGATCTGAGAGACAGGCTAA-TTTTATGAGGAAGATCTGCGCTTCTTCAAG 2095
QY 251 GCAAGGCGCGCGAGTCTCCCGACGAGCAAGACCGCGCAAGCGCCCAAGCGCGAGC 310
DB 2096 GGAAGGCGCAAGGAAATTTCTTCAAGAGCAGACCAAGGCCAACGCCCAACGAAGAGAGC 2155
QY 311 TGCAGGTGCGCG-----GACAAACCCCGCAGGAGGCGCGCGCGCGCGCGCGCA 364
DB 2156 TTCAAGGTCTGGGGTATAGACAAACATCCCTCTGAGAGCAGAGCCGATAGACAAAGAA 2215
QY 365 -----CCCTGAATCTTCCCCCAGATCACCTGTGTGCAAGCGCCCTGGTGAACATCAAG 418
DB 2216 CTGTATCTTTTAACTTCCCTCAGATCACTCTTTGGCAACGACCCCTCTCTCAAGTAAAG 2275
QY 419 TGGGCGGCGCAGATCAAGAGGCGCTGCTGACACCGCGCGCGAGACGACCGTGTGAGG 478
DB 2276 TCGGGGCGCAACTCAAGAGAGCGCTGCTGATACAGAGCAGATATACATATTAGAAAG 2335
QY 479 AGATGAGCCTGCGCGGCAAGTGAAGCCCAAGATGATCGCGGCAATCGCGGCTTCATCA 538
DB 2336 AATATGATTTTCCAGGAAGATGGAACCAAAAATGATAGGGGGGATTCGGGGGCTTCATCA 2395
QY 539 AGGTGCGCGCAGTACGACCAAGATCTGTATCGAGATTTGGCGCAAGAGGCCATCGGACCG 598
DB 2396 AGGTGAGGCAATGACACCAAGATCTGTGAAATCTGTGACATTAACCTATAGGTAAAG 2455
QY 599 TGTGATGCGGCGGCGCGCGCGGTAATCATCGCGCGCAATGCTGACCCGAGCTGGGCT 658
DB 2456 TATTATGTAAGACCTACCTGTCAACATTAATTGGAAGAAATCTGTTGACCCAGATCGGCT 2515
QY 659 GCACCTCTGAATCTTCCCATCAAGCCCATCGAAGCCGTGCGGTGAAGCTGAAGCCCGCA 718
DB 2516 GCACCTTGAATCTTCCCATCAAGCCCATATTGAAGCGGTGCGGTGAAGTTGAAGCGGGGA 2575
QY 719 TGAAGCGCGCGCGCAAGGTGAAGCTGGCGCTGACCGAGAGAAAGATCAAGGCGCTGACCG 778
DB 2576 TGGAGCGGCGCGCGCAAGGTGAAGCTGGCATTCGACAAAGAGAGATCAAGGCGTTAGTCG 2635
QY 779 CCATCTGGAGAGAGATGAGAGAGAGAGAGATCAACCAAGATGGCGCCCGAGAGCCCT 838
DB 2636 AATATGTATCAGAGATGAGAGAGAGAGAGATCAAGATCGGCGCTGGAAGCCCT 2695
QY 839 ACAACACCCCGGTGTTGCGCATCAAGAAAGAGACAGCAACCAATGCGCGCAAGCTGTGCG 898

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QY 899 ACTTCGCGAGCTGAACAGAGCGACCCAGGACTTCTGAGAGGTCAAGCTGGGCAATCCGCC 958
DB 2756 ACTTCAGAGAGCTGAACAGAGAACTCAGAGACTTCTGGGAAGTTCAAGCTGGGCAATCCAC 2815
QY 959 ACCCGCGCGCTGAGAGAGAGAGAGAGCGTGAACCGTGTGAGAGTGGCGGCAAGCTTACT 1018
DB 2816 ATCCCGGTGGGTGAAGAGAGAGAGAGTCAAGTACAGTGTCTGAGATGTGGGTATCCCTACT 2875
QY 1019 TCAAGCTGCGCTTGAAGAGAGACTTTCGCAAGTACACGCGCTTCAACATCCCCAGCATCA 1078
DB 2876 TCTCCGTTCCTTGTGAGAGAGACTTCAGAGAGTACACTGCTTCAAGATACCTTACATCA 2935
QY 1079 ACAAGAGAGACCCCGGCGATCCGCTACCAAGTACCAAGTCTGAGACCCCTTCGCGCGCGCAAC 1138
DB 2936 ACAAGAGAGACCAAGGCTCCGCTACCAAGTACCAAGTCTGAGACCCCTTCGCGCGCGCAAC 2995
QY 1139 GCCCAGCATCTTTCAGAGCAGATGACCAAGATCTGAGACCCCTTCGCGCGCGCAAC 1198
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QY 1199 CCGAGATCTGATTTACCAAGTACATGACGACCTGTACGTGGCGAGCGACCTTGAAGATCG 1258
DB 3056 CAGACATCTGATCTATCAGTACATGACGACCTCTAGTGAAGATGACCTTGAAGATCG 3115
QY 1259 GCACAGACCGCGCGCAAGTGAAGAGGCTGCGCAAGACCTGCTGCGCTGGGGCTTCAACA 1318
DB 3116 GGCAGACAGAGACCAAGATCGAGAGCTGAGACAGCATCTTGAAGTGGGAGCTGACCA 3175
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DB 3176 CACCAAGCAAGAGACCAAGAGAGGAACTTCTGTGTGATGGGCTTACGAGCTGCATC 3235
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DB 3356 TTAGGAGCTGTGGAAGCTGTGCTTGAAGGAAACAAAGGCACTGACAGAGTGAATCCACTGA 3415
QY 1559 CCGAGAGGCGGAGCTGAGAGCTGGCGGAGAACCGGAGATCTCTGCGGAGCGCCGTGACG 1618
DB 3416 CAGAGGAAGCAGAGCTGAGAACCTGGCAGAGAACCGAGAGATCTGAAGAGGCGACGTACATG 3475
QY 1619 GCGTGTACTACAGCCCGCAGAGAGACCTGTGCGCGGAGATCCAGAGAGAGGCGCACAGC 1678
DB 3476 GAGGTATCTACAGCCCAAGAGAGCTGTATCGAGAGATCCAGAGAGAGGCGCACAGGCC 3535
QY 1679 AGTGAACCTTACAGATTTACAGAGAGCCCTTCAAGAACTGAAGACCGGCAAGTACGCA 1738
DB 3536 AATGACCTTACCAATCTTACCAAGAGGCGCTTCAAGAACTGAAGACGAGCAAGTACGCA 3595
QY 1739 AGATGCGCACCGCGCACCAACGACGTGAAGCAGCTGACCGAGGCGCTGCAAGAGATCG 1798
DB 3596 GAGATGAGGAGTGGCCACACCAACGATGGAAGCAGCTGACAGAGGCAATGCAAGAGATCA 3655
QY 1799 CCATGAGAGAGCATGTGATCTGGGGGCAAGACCCCAAGTTCCGCGCTGCGCATTCAGAAAG 1858
DB 3656 CCACAGAGAGCATGTGATCTGGGGGCAAGACTTCCCAATTTCAAGCTGCCATACAGAAAG 3715
QY 1859 AGACTGTGAGACCTGTGTGACCGACTACTGTGACGACCTGTGATCCCGAGTGGAGT 1918
DB 3716 AGACATGGAGACATGTGTGACCGAGTACTGTGCAAGGCACTGTGATCCCTGAGTGGAGT 3775
QY 1919 TGTGAACACCCCGCGTGTGAGAGCTGTGTACAGCTGAGAGAGAGGCCATCATCG 1978

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Db	3776	TCGTGAACACCCCTCCCTTGTGTAACCTGTGATCAGCTGAGAGGAAACCCATCCTGG	3835
QY	1979	GCGCCGAGACCTTCTACGTGAGACGGCCGAACCGGAGACCAAGATCGGCAAGGCCG	2038
Db	3836	GAGCAGAGACCTTCTACGTGATGGGGCAGCCAAACAGGAGACCAAGCTGGGCAAGCCAG	3895
QY	2039	GCTACGTGACGACCGGGGCGGCGAAGATGTGAGCCTGACCGAGACCAACCAACGA	2098
Db	3896	GCTACGTGACCAACCGAGAGACGACAGAAAGTGTGACCTGTGACACCAACCAACGAG	3955
QY	2099	AGACCGAGCTGAGGCTATCCAGCTGGCCCTGCAAGACAGCGGCGAGAGGTGAACATCG	2158
Db	3956	AGACTGAGCTGCAAGCCATCTACCTAGCTGTGCAAGACAGCGGACTGGAAGTGAACATCG	4015
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Db	4016	TGACAGACTCAGAGTACGCACTGGGCTATCATCCAGCACACCAACCAATCCGAGTCAG	4075
QY	2219	AGCTGTGTAACCAATCATTCGAGAGCTGATCAAGAGAGAGAGGTGTACTTGAGCTGGG	2278
Db	4076	AGCTGTGTAACCAATCATTCGAGAGCTGATCAAGAGAGAGAGGTGTACTTGAGCTGGG	4135
QY	2279	TGCCCGCCCAAGAGGCTATCGGCGGCAAGAGACATCGAACAGCTGTGAGCAAGGCA	2338
Db	4136	TACCAAGCAACAAAGGAATTGAGAGAAATGAACAAATGATTAATTAGTCAGTGCTGGGA	4195
QY	2339	TCCGCAAGGTGCTGTCTCTGAGCGGCTGAT	2370
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 Job time : 435.699 secs

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GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: December 30, 2005, 07:51:44 ; Search time 1730.2 Seconds
(without alignments)
11800.393 Million cell updates/sec

Title: US-09-610-313B-30

Perfect score: 2469
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Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 1.0

Searched: 9793542 seqs, 4134689005 residues

Total number of hits satisfying chosen parameters: 19587084

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database:

Published Applications NA Main:*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2469	100.0	2469	US-09-899-575-30	Sequence 30, Appl
2	2457	99.5	2457	US-10-190-435-45	Sequence 45, Appl
3	2457	99.5	2457	US-10-190-305A-39	Sequence 39, Appl
4	2442.2	98.9	2457	US-09-899-575-31	Sequence 31, Appl
5	2434.6	98.6	2457	US-10-190-435-44	Sequence 44, Appl
6	2434.6	98.6	2457	US-10-190-305A-38	Sequence 38, Appl
7	2415.4	97.8	2457	US-09-899-575-32	Sequence 32, Appl
8	2401.8	97.3	2445	US-10-190-435-43	Sequence 43, Appl
9	2401.8	97.3	2445	US-10-190-305A-37	Sequence 37, Appl
10	2394.8	97.0	3930	US-10-190-435-9	Sequence 9, Appl
11	2393.2	96.9	3930	US-10-190-435-10	Sequence 10, Appl
12	2393.2	96.9	3930	US-10-190-435-11	Sequence 11, Appl
13	2393.2	96.9	5184	US-10-190-435-58	Sequence 58, Appl
14	2393.2	96.9	5184	US-10-190-305A-82	Sequence 82, Appl
15	2362.8	95.7	3531	US-10-190-435-13	Sequence 13, Appl
16	2361.2	95.6	3537	US-10-190-435-14	Sequence 14, Appl
17	2361.2	95.6	3537	US-10-190-435-15	Sequence 15, Appl
18	2360.2	95.6	5145	US-10-190-435-12	Sequence 12, Appl
19	2360.2	95.6	5145	US-10-190-305A-12	Sequence 12, Appl
20	2349.4	95.2	3624	US-10-190-435-47	Sequence 47, Appl
21	2349.4	95.2	3624	US-10-190-305A-41	Sequence 41, Appl
22	2301.8	93.2	3607	US-10-190-435-48	Sequence 48, Appl
23	2301.8	93.2	3607	US-10-190-305A-42	Sequence 42, Appl

24	2283.6	92.5	3597	6	US-10-190-435-46	Sequence 46, Appl
25	2283.6	92.5	3597	6	US-10-190-305A-40	Sequence 40, Appl
26	2149.6	87.1	2472	6	US-10-241-009-32	Sequence 32, Appl
27	2149.6	87.1	2472	6	US-10-190-434B-32	Sequence 32, Appl
28	2149.6	87.1	2472	6	US-10-190-305A-34	Sequence 34, Appl
29	2149.6	87.1	2472	6	US-10-976-619-32	Sequence 32, Appl
30	2121.2	85.9	2466	6	US-10-241-009-31	Sequence 31, Appl
31	2121.2	85.9	2466	6	US-10-190-434B-31	Sequence 31, Appl
32	2121.2	85.9	2466	6	US-10-190-305A-33	Sequence 33, Appl
33	2121.2	85.9	2466	6	US-10-976-619-31	Sequence 31, Appl
34	2094.4	84.8	2460	6	US-10-241-009-30	Sequence 30, Appl
35	2094.4	84.8	2460	6	US-10-190-434B-30	Sequence 30, Appl
36	2094.4	84.8	2460	6	US-10-190-305A-32	Sequence 32, Appl
37	2094.4	84.8	2460	6	US-10-976-619-30	Sequence 30, Appl
38	2093.4	84.8	3564	6	US-10-241-009-14	Sequence 14, Appl
39	2093.4	84.8	3564	6	US-10-190-434B-14	Sequence 14, Appl
40	2093.4	84.8	3564	6	US-10-190-434B-13	Sequence 13, Appl
41	2093.4	84.8	3564	6	US-10-976-619-13	Sequence 13, Appl
42	2093.4	84.8	3564	9	US-10-976-619-14	Sequence 14, Appl
43	2092.8	84.8	4716	6	US-10-190-435-17	Sequence 17, Appl
44	2092.8	84.8	4716	6	US-10-190-305A-13	Sequence 13, Appl
45	2092.8	84.8	4716	6	US-10-190-435-13	Sequence 13, Appl

ALIGNMENTS

RESULT 1
US-09-899-575-30
Sequence 30, Application US/09899575
Publication No. US20030223961A1
GENERAL INFORMATION:
APPLICANT: Zur Megede, Jan
APPLICANT: Barnett, Susan W.
APPLICANT: Egnelbrecht, Susan
APPLICANT: van Rensburg, Estrelita Janse
TITLE OF INVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C
FILE REFERENCE: P01631.102
CURRENT APPLICATION NUMBER: US/09/899,575
CURRENT FILING DATE: 2001-07-05
PRIOR APPLICATION NUMBER: 09/475,704
PRIOR FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 135
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 30
LENGTH: 2469
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURES:
OTHER INFORMATION: Description of Artificial Sequence: PR975(+)
US-09-899-575-30

Query Match 100.0%; Score 2469; DB 3; Length 2469;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2469; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY	61	CGCAGCACTTCAAGGGCCCGAAGCCATCATTAATGCTTCAATCGCGGAGAGGGC	120
DB	61	CGCAGCACTTCAAGGGCCCGAAGCCATCATTAATGCTTCAATCGCGGAGAGGGC	120
QY	121	CACATGCGCGCACTGCGCGCGCGCGCGCGCAAGAGGCTGTGGAAGTCCGCAAGAG	180
DB	121	CACATGCGCGCACTGCGCGCGCGCGCGCGCAAGAGGCTGTGGAAGTCCGCAAGAG	180
QY	181	GGCCACCAATGAGAGCTGCAACGAGCGCCAGGCCCACTTCTTCCGAGACCTGCGC	240
DB	181	GGCCACCAATGAGAGCTGCAACGAGCGCCAGGCCCACTTCTTCCGAGACCTGCGC	240

QY	241	TTCCCCAGGGGCAAGGCCCCGGAGTTTCCCAGCGAGCGAAGAACCCGGCCCAACAGCCCCCACC	300
Db	241	TTCCCCCAGGGGCAAGGCCCCGGAGTTTCCCAGCGAGCGAAGAACCCGGCCCAACAGCCCCCACC	300
QY	301	AGCGCGAGGCTGCAGGTGGCGGCGACAAACCCCGCAGCGAGGGCCGGCGCCGAGGCGCAG	360
Db	301	AGCGCGAGGCTGCAGGTGGCGGCGACAAACCCCGCAGCGAGGGCCGGCGCCGAGGCGCAG	360
QY	361	GGCACTCTGAACCTTCCCCAGATCAACCTGTGGACGCGCCCTTGTGTGATCAAGGTG	420
Db	361	GGCACTCTGAACCTTCCCCAGATCAACCTGTGGACGCGCCCTTGTGTGATCAAGGTG	420
QY	421	GGCGGCGAGATCAAGAGAGGCTCTGCTGGAACAACCGCGCCGACAGAACCTGTGTGGAGAG	480
Db	421	GGCGGCGAGATCAAGAGAGGCTCTGCTGGAACAACCGCGCCGACAGAACCTGTGTGGAGAG	480
QY	481	ATGAGCCTGGCCCGGCGAGTGGAGAGGCCCAAGATGATCGGCGGCGATCGGCGGCTTCAACAAG	540
Db	481	ATGAGCCTGGCCCGGCGAGTGGAGAGGCCCAAGATGATCGGCGGCGATCGGCGGCTTCAACAAG	540
QY	541	GTGCGCCAGTACGACCAAGTCTTGATCGAGATCTGCGGCAAGAGAGGCCATCGGACCCGTG	600
Db	541	GTGCGCCAGTACGACCAAGTCTTGATCGAGATCTGCGGCAAGAGAGGCCATCGGACCCGTG	600
QY	601	CTGATCGGCGCCCAACCCCGGTGAACATCATCGGCGCGCAATGTCTGATCCGACGTGGGCTGGC	660
Db	601	CTGATCGGCGCCCAACCCCGGTGAACATCATCGGCGCGCAATGTCTGATCCGACGTGGGCTGGC	660
QY	661	ACCGTGAACTTCCCCCATCAGGCCCAATCGAGACCGTGGCCGTTGAACCTGAAGCCCGGCAATG	720
Db	661	ACCGTGAACTTCCCCCATCAGGCCCAATCGAGACCGTGGCCGTTGAACCTGAAGCCCGGCAATG	720
QY	721	GACGCGCCCAAGGTGAAGCATGTGCCCCCTGACCCGAGAGAGAGATCAAGGCCCTTGAACGCGC	780
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QY	781	ATCTGCGAGAGATGAGAGAGAGGCGCAAGATCAACCAAGATCGGCCCGGAGAACCCCTTAC	840
Db	781	ATCTGCGAGAGATGAGAGAGAGGCGCAAGATCAACCAAGATCGGCCCGGAGAACCCCTTAC	840
QY	841	AACAACCCCGGTGTCGCAATCAAGAGAGAGGACACACCAAGTGGCGCAAGCTGTGTGAC	900
Db	841	AACAACCCCGGTGTCGCAATCAAGAGAGAGGACACACCAAGTGGCGCAAGCTGTGTGAC	900
QY	901	TTCCGCGAGCTGAACAAGCGCACCCAGAGACTTCTGAGAGGTGCACCTGCGCATTCCCAC	960
Db	901	TTCCGCGAGCTGAACAAGCGCACCCAGAGACTTCTGAGAGGTGCACCTGCGCATTCCCAC	960
QY	961	CCCGCGCGCTGAGAGAGAGAGAGAGCGGTGACCCGTGCTGAGAGTGGGCGACCCCTTACTTC	1020
Db	961	CCCGCGCGCTGAGAGAGAGAGAGAGCGGTGACCCGTGCTGAGAGTGGGCGACCCCTTACTTC	1020
QY	1021	AGCGTGGCCCTGAGAGAGAGACTTCCGCGAAGTACACCGGCTTCAACATCCCCAGCATCAAC	1080
Db	1021	AGCGTGGCCCTGAGAGAGAGACTTCCGCGAAGTACACCGGCTTCAACATCCCCAGCATCAAC	1080
QY	1081	AACGAGACCCCGCGCATCGCTTACCAAGTACAACTGTGCGCCCAAGGCTGGAAGGGCGAGC	1140
Db	1081	AACGAGACCCCGCGCATCGCTTACCAAGTACAACTGTGCGCCCAAGGCTGGAAGGGCGAGC	1140
QY	1141	CCGACGATCTTCCAGAGCAGCTGACCAAGATCTGTGAGGCCCTTCCGCGCCGCGCAACCC	1200
Db	1141	CCGACGATCTTCCAGAGCAGCTGACCAAGATCTGTGAGGCCCTTCCGCGCCGCGCAACCC	1200
QY	1201	GAGATCGTGAATTACCAAGTACATGAGACGACTGTGACGAGGAGGAGGAGCCTGAGATCGCG	1260
Db	1201	GAGATCGTGAATTACCAAGTACATGAGACGACTGTGACGAGGAGGAGGAGCCTGAGATCGCG	1260
QY	1261	CAGCACCGCGCCAGATCGAGAGGCTGCGCAAGCACTGTGCGCTTCAACACAC	1320
Db	1261	CAGCACCGCGCCAGATCGAGAGGCTGCGCAAGCACTGTGCGCTTCAACACAC	1320
QY	1321	CCCGCAAGAGACCAAGAGAGGCCCTTCTGTGTGATGAGGCTACGAGCTGACACC	1380

Db	1321	CCCGACAAAGAGACACAGAGAGAGCCCCCTTCTGTGTATGGGCTACAGACTGACCCC	1380
Qy	1381	GACAAAGTGAACCGTGCAGACCCATCGAGCTGCCCGAGAGAGAGCTGAACTGTAAAGAC	1440
Db	1381	GACAAAGTGAACCGTGCAGACCCATCGAGCTGCCCGAGAGAGAGAGCTGAACTGTAAAGAC	1440
Qy	1441	ATCCAGAAAGCTGTGGGCGAAGCTGAACTGGGCGACGCCGATCTACCCCGGATTCAGAGTG	1500
Db	1441	ATCCAGAAAGCTGTGGGCGAAGCTGAACTGGGCGACGCCGATCTACCCCGGATTCAGAGTG	1500
Qy	1501	CGCAGCTGTGGCAAGCTGTGCAGCGGCGGCGAAGGCGCTTGAACCGACATCGTGGCCCTGAC	1560
Db	1501	CGCAGCTGTGGCAAGCTGTGCAGCGGCGGCGAAGGCGCTTGAACCGACATCGTGGCCCTGAC	1560
Qy	1561	GAGAGAGCCGAGCTGAGCTGGACGAGAACCGCGAGATCTCTGGCGAGACCCGTGTACAGGC	1620
Db	1561	GAGAGAGCCGAGCTGAGCTGGACGAGAACCGCGAGATCTCTGGCGAGACCCGTGTACAGGC	1620
Qy	1621	GTGTATCTACGACCCCGAGAGAGACTGTGTGGCGAGATTCAGAAAGCAGGGCGACAGCACAG	1680
Db	1621	GTGTATCTACGACCCCGAGAGAGACTGTGTGGCGAGATTCAGAAAGCAGGGCGACAGCACAG	1680
Qy	1661	TGGACCTACCAAGATCTTACAGAGAGCCCTTCAAGAACCTTGAAGAACCCGGCAAGTACCGCAAG	1740
Db	1661	TGGACCTACCAAGATCTTACAGAGAGCCCTTCAAGAACCTTGAAGAACCCGGCAAGTACCGCAAG	1740
Qy	1741	ATGCGCACCCGCGCCACACCAACGAGCTGTAGAGAGCTGTACCGAGGCGGTGCAGAAAGATGACC	1800
Db	1741	ATGCGCACCCGCGCCACACCAACGAGCTGTAGAGAGCTGTACCGAGGCGGTGTAGAAAGATGACC	1800
Qy	1801	ATGGAAGAGCATGTGTATCTGTGGGCGAAGACCCCGCAAGTTCCGCTGTGCCATTCAGAAAGAG	1860
Db	1801	ATGGAAGAGCATGTGTATCTGTGGGCGAAGACCCCGCAAGTTCCGCTGTGCCATTCAGAAAGAG	1860
Qy	1861	ACCTGGGAGAGACTGTGTGAACCGACCTACGTGAGGCGCACCTGTGAATCCCGAGGTGGAGATTTC	1920
Db	1861	ACCTGGGAGAGACTGTGTGAACCGACCTACGTGAGGCGCACCTGTGAATCCCGAGGTGGAGATTTC	1920
Qy	1921	GTGGAACACCCCCCTGTGTGAAGCTGTGTGTACCAAGCTGTGAGAGAGAGAGCCCATTCAGGC	1980
Db	1921	GTGGAACACCCCCCTGTGTGAAGCTGTGTGTACCAAGCTGTGAGAGAGAGAGCCCATTCAGGC	1980
Qy	1981	GCCGAGACCTTCTACGTGTAGAGCGCGCGCCACACCGAGAGACAAAGATCGGCAAGGCGGCG	2040
Db	1981	GCCGAGACCTTCTACGTGTAGAGCGCGCGCCACACCGAGAGACAAAGATCGGCAAGGCGGCG	2040
Qy	2041	TACGTGAACCGACCGGGGCGCGCAGAAAGATGTGTAGCTGTGACCGAGACCAACCAACAGAG	2100
Db	2041	TACGTGAACCGACCGGGGCGCGCAGAAAGATGTGTAGCTGTGACCGAGACCAACCAACAGAG	2100
Qy	2101	ACCGAGCTGACAGGCATTCAGACTGGACCCTTGAGAGACAGCGGCGAGCGAGGTGAATCTGTG	2160
Db	2101	ACCGAGCTGACAGGCATTCAGACTGGACCCTTGAGAGACAGCGGCGAGCGAGGTGAATCTGTG	2160
Qy	2161	ACCGACAGCCGATACGCCCTCTGGGCGATATTCAGGCGCCAGCCCGACAGAGAGCGAG	2220
Db	2161	ACCGACAGCCGATACGCCCTCTGGGCGATATTCAGGCGCCAGCCCGACAGAGAGCGAG	2220
Qy	2221	CTGTGTGAACCGAGATTCAGAGCAGCTGTATCAAGAGAGAGAAAGGTGTACTGTAGCTGGGTG	2280
Db	2221	CTGTGTGAACCGAGATTCAGAGCAGCTGTATCAAGAGAGAGAAAGGTGTACTGTAGCTGGGTG	2280
Qy	2281	CCCGGCCCAAGAGGCGATTCGCGCGCAAGAGCAGATTCGACAAAGCTGTGTAGACAGGCGATC	2340
Db	2281	CCCGGCCCAAGAGGCGATTCGCGCGCAAGAGCAGATTCGACAAAGCTGTGTAGACAGGCGATC	2340
Qy	2341	CGAAGAGTGTCTTCTGTGACGCGCATGTATGGCGGATCTGTATCTACAGTACATGAGAC	2400
Db	2341	CGAAGAGTGTCTTCTGTGACGCGCATGTATGGCGGATCTGTATCTACAGTACATGAGAC	2400
Qy	2401	GACCTGTACGTGTGGCAGCGGCGGCGCTTGAAGATTCGATTAAGCTTCCCGGGGCGTACAGACC	2460
Db	2401	GACCTGTACGTGTGGCAGCGGCGGCGCTTGAAGATTCGATTAAGCTTCCCGGGGCGTACAGACC	2460

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US-10-190-435-45
Sequence 45, Application US/10190435
Publication No. US20030143248A1
GENERAL INFORMATION:
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: BARNETT, Susan W.
APPLICANT: LIAN, Ying
APPLICANT: ENGELBRECHT, Susan
APPLICANT: VAN RENSBURG, Estrelita J.
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
FILE REFERENCE: PPI8133.003 / 2302-18133
CURRENT APPLICATION NUMBER: US/10/190,435
CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 45
LENGTH: 2457
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: p2poloapt_C
US-10-190-435-45

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					Gaps
					0
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QY	67	AACCTCAAGGGGCCCAAGCGCATCATCAAGTCTTCAATTGGGGCAAGGAGGCCACATC	126		
DB	61	AACCTCAAGGGGCCCAAGCGCATCATCAAGTCTTCAATTGGGGCAAGGAGGCCACATC	120		
QY	127	GCCCGCACTGCGCGGCCCGCCGCAAGAGGGCTGTGGAAGTGGCGGCAAGAGAGGCCAC	186		
DB	121	GCCCGCACTGCGCGGCCCGCCGCAAGAGGGCTGTGGAAGTGGCGGCAAGAGAGGCCAC	180		
QY	187	CAGATGAAGACTGCAACCGAGCGCCAGGCCAACTTCTTCGCGAGGACTGTGCTTCCCT	246		
DB	181	CAGATGAAGACTGCAACCGAGCGCCAGGCCAACTTCTTCGCGAGGACTGTGCTTCCCT	240		
QY	247	CAGGGCAGGGCCCGCGCATTTCCCGAGCGAGCAAACTCGGGCCAACAGCCCCCAAGCCCG	306		
DB	241	CAGGGCAGGGCCCGCGCATTTCCCGAGCGAGCAAACTCGGGCCAACAGCCCCCAAGCCCG	300		
QY	307	GAGCTGCAGGTGGCGGCGGCAAACTCCCGAGCGAGGCGCGCGCGAGCGCCAGGCGCACCC	366		
DB	301	GAGCTGCAGGTGGCGGCGGCAAACTCCCGAGCGAGGCGCGCGCGCGAGCGCCAGGCGCACCC	360		
QY	367	CTGAACCTTCCCGCAGATCACTCTGTGGCAGCGCCCTCTGTGTGACATCAAGTGGCGCG	426		
DB	361	CTGAACCTTCCCGCAGATCACTCTGTGGCAGCGCCCTCTGTGTGACATCAAGTGGCGCG	420		
QY	427	CAGATCAAGAGGCCCTTGCTGCAACCGGCGCCGAAGACAACGCTGTGAGAGAGATGAGC	486		
DB	421	CAGATCAAGAGGCCCTTGCTGCAACCGGCGCCGAAGACAACGCTGTGAGAGAGATGAGC	480		
QY	487	CTGCCCGGCAAGTGAAGCCCAAGATGATCGCGGATCGGCGGCTTCAATCAAGGTGCGC	546		
DB	481	CTGCCCGGCAAGTGAAGCCCAAGATGATCGGCGGATCGGCGGCTTCAATCAAGGTGCGC	540		
QY	547	CAGTACCAACAGATCTGTGAGATCTGCGGCAAGAGGCCATCGGCAACCGTGTGATC	606		

Db	541	CAGTACGACGATCTGATCGAGTCTGCGGCAAGAGCCATCCGACCCGTGCTGATC	600
Qy	607	GGCCCCAACCCCCGTGAACATCATCTGCGCGACGACATGCTGACCCAGCTGAGCTGCACCCTTG	666
Db	601	GGCCCCAACCCCCGTGAACATCATCTGCGCGACGACATGCTGACCCAGCTGAGCTGCACCCTTG	660
Qy	667	AACCTTCCCATCAGCCCCCATCGAGACCTGTGCCCCGTGAGACTGAAAGCCCCCGGACATGAGCGGC	726
Db	661	AACCTTCCCATCAGCCCCCATCGAGACCTGTGCCCCGTGAGACTGAAAGCCCCCGGACATGAGCGGC	720
Qy	727	CCCAAGGTGAAGGAGTGGCCCCCTGACCGGAGAGAAAGATCAAGGCCCTGACCCGCTATCTGC	786
Db	721	CCCAAGGTGAAGGAGTGGCCCCCTGACCGGAGAGAAAGATCAAGGCCCTGACCCGCTATCTGC	780
Qy	787	GAGGAGATGAGAGAGAGGCGAAGATCACCAAGATCGGCCCGGAGAACCCCTTCAACACCC	846
Db	781	GAGGAGATGAGAGAGAGGCGAAGATCACCAAGATCGGCCCGGAGAACCCCTTCAACACCC	840
Qy	847	CCCGGTGTTCCGCATCAAGAGAGAGACAGCACCAAGTGGCGGACGACTGTGTGACTTTCGC	906
Db	841	CCCGGTGTTCCGCATCAAGAGAGAGACAGCACCAAGTGGCGGACGACTGTGTGACTTTCGC	900
Qy	907	GAGCTGAACAAAGCCGACCCAGAGAACTTTCGTGGAGGTGTGAGCTGTGGCCATCCCCCAACCCCGCC	966
Db	901	GAGCTGAACAAAGCCGACCCAGAGAACTTTCGTGGAGGTGTGAGCTGTGGCCATCCCCCAACCCCGCC	960
Qy	967	GGCCCTGAAGAGAGAGAGGCTGACCGCTGTGACCTGTGGACCTGTGGGCGACGCTTACGCGTG	1026
Db	961	GGCCCTGAAGAGAGAGAGGCTGACCGCTGTGACCGCTGTGACCTGTGGGCGACGCTTACGCGTG	1020
Qy	1027	CCCTGTGACGAGGACTTCCGCAATGACACGCGCTTCAACATCCGACAGCATCAACAGAG	1086
Db	1021	CCCTGTGACGAGGACTTCCGCAATGACACGCGCTTCAACATCCGACAGCATCAACAGAG	1080
Qy	1087	ACCCCGGCAATCCGCTACCACTGACGATGACGCTGTGCCCCGAGGGCTGGAAGGGCAGGCCAGC	1146
Db	1081	ACCCCGGCAATCCGCTACCACTGACGATGACGCTGTGCCCCGAGGGCTGGAAGGGCAGGCCAGC	1140
Qy	1147	ATCTTCCAGAGAGAGATGACCAAGATCCTGTGAGCCCTTCCGCGCGCCGCAACCCCGAGATC	1206
Db	1141	ATCTTCCAGAGAGAGATGACCAAGATCCTGTGAGCCCTTCCGCGCGCCGCAACCCCGAGATC	1200
Qy	1207	GTGATCTACCACTACATGAGACGACCTGTGACGTGGGCGAGCGACTGTGAGATGAGCCAGCAC	1266
Db	1201	GTGATCTACCACTACATGAGACGACCTGTGACGTGGGCGAGCGACTGTGAGATGAGCCAGCAC	1260
Qy	1267	CGCGCCAGAGATGAGAGACTGTGGCAAGCACTGTGCGCTGTGGGCTTACCAACCCCGGAC	1326
Db	1261	CGCGCCAGAGATGAGAGACTGTGGCAAGCACTGTGCGCTGTGGGCTTACCAACCCCGGAC	1320
Qy	1327	AAGAAAGCACAGAAAGAGACCCCGCTTCCGTGTGAGTGGGCTTACGAGCTGCAACCCGACAG	1386
Db	1321	AAGAAAGCACAGAAAGAGACCCCGCTTCCGTGTGAGTGGGCTTACGAGCTGCAACCCGACAG	1380
Qy	1387	TGGAACCGTACAGCCCATCGAGCTGCCGAGAAAGAGAGACTGGAACCGTGAACGACATCCAG	1446
Db	1381	TGGAACCGTACAGCCCATCGAGCTGCCGAGAAAGAGAGACTGGAACCGTGAACGACATCCAG	1440
Qy	1447	AAGCTGTGGGAGCACTGAACTGGGCGACCGAGATCTTACCCCGCATTAAGGTGCGCCAG	1506
Db	1441	AAGCTGTGTGGGCAACTGAACTGGGCGACCGAGATCTTACCCCGCATTAAGGTGCGCCAG	1500
Qy	1507	CTGTGCAAGCTGCTGCGGCGGCGCCAAAGGCCGTAACCGACATCTGATCCCTTACCGAGGAG	1566
Db	1501	CTGTGCAAGCTGCTGCGGCGGCGCCAAAGGCCGTAACCGACATCTGATCCCTTACCGAGGAG	1560
Qy	1567	GCGAGCTGAGACTGCGCGAGAACCGGAGATCTCTGCGCGAGCCCGTGCACGCGGTGTAC	1626
Db	1561	GCGAGCTGAGACTGCGCGAGAACCGGAGATCTCTGCGCGAGCCCGTGCACGCGGTGTAC	1620
Qy	1627	TACGACCCGACAGGACTGTGTGCGGAGATCCAGAAAGCAGGGCCAAAGACCACTGTGACC	1686

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Db      1621 TACGACCCGACGAGACCTGTGTGGCCGAGATCCAGAAAGAGGCGCACGACCAAGTGCAC 1680
Qy      1687 TACCAGATCTACACGAGAGCCCTTCAAGAACTGAAGACCGGCAAGTACGCCAAGATGGC 1746
Db      1681 TACCAAGATCTACGAGAGCCCTTCAAGAACTGAAGACCGGCAAGTACGCCAAGATGGC 1740
Qy      1747 ACCGCCCAACCAACGAGCTGAAGAGCTGACCCGAGGCCGTGACAGAGATGGCAATGGAG 1806
Db      1741 ACCGCCCAACCAACGAGCTGAAGAGCTGACCCGAGGCCGTGACAGAGATGGCAATGGAG 1800
Qy      1807 AGCATTCGTATCTGTGGGGAAGACCCCGAAGTTCGGCCCTGCGCATCCAGAAAGAGCCCTGG 1866
Db      1801 AGCATTCGTATCTGTGGGGAAGACCCCGAAGTTCGGCCCTGCGCATCCAGAAAGAGCCCTGG 1860
Qy      1867 GAGACTGTGTGACCGACTACTGTGAGAGGCACTGTGATCCCGAGTGGAGTTGTGTGAC 1926
Db      1861 GAGACTGTGTGACCGACTACTGTGAGAGGCACTGTGATCCCGAGTGGAGTTGTGTGAC 1920
Qy      1927 ACCCCCCCTGTGTGAAGCTGTGTGACAGCTGTGAAGAAAGAGCCCATCATCGCGCGCGAG 1986
Db      1921 ACCCCCCCTGTGTGAAGCTGTGTGACAGCTGTGAAGAAAGAGCCCATCATCGCGCGCGAG 1980
Qy      1987 ACCCTTCTACGTGAGACGGCGCGCCCAACCTGCGAGACCAAGATCGGCAAGGCCGCTACCTG 2046
Db      1981 ACCCTTCTACGTGAGACGGCGCGCCCAACCTGCGAGACCAAGATCGGCAAGGCCGCTACCTG 2040
Qy      2047 ACCGACCGGGGCGCGGACAAAGATCGTGAAGCTGTGACCGAGACCAACCAAGAGAGCCGAG 2106
Db      2041 ACCGACCGGGGCGCGGACAAAGATCGTGAAGCTGTGACCGAGACCAACCAAGAGAGCCGAG 2100
Qy      2107 CTGCAAGCCATCGAGCTGTGACCTGTGAGAGACAGCGGACAGAGGTGAACATCGTGAACGAC 2166
Db      2101 CTGCAAGCCATCGAGCTGTGACCTGTGAGAGACAGCGGACAGAGGTGAACATCGTGAACGAC 2160
Qy      2167 AGCCAGTACGGCCCTGTGGGCAATCATCGAGGCCCAAGCCCAAGAGAGAGAGAGAGGTGTG 2226
Db      2161 AGCCAGTACGGCCCTGTGGGCAATCATCGAGGCCCAAGCCCAAGAGAGAGAGAGGTGTG 2220
Qy      2227 AACCGATCATCGAGCAGCTGTATCAAGAAAGAGAGGTGTACTGTAGCTGTGGTGCCTG 2286
Db      2221 AACCGATCATCGAGCAGCTGTATCAAGAAAGAGAGGTGTACTGTAGCTGTGGTGCCTG 2280
Qy      2287 CACAAGGCGCATCGCGGCAACGAGCATCGACAGCTGTGTGAGAGAGGCAATCCGCAAG 2346
Db      2281 CACAAGGCGCATCGCGGCAACGAGCATCGACAGCTGTGTGAGAGAGGCAATCCGCAAG 2340
Qy      2347 GTGCTGTCTGTGACGGCATCGATGCGCGCATCGTATCTACAGTACATGAGCACTG 2406
Db      2341 GTGCTGTCTGTGACGGCATCGATGCGCGCATCGTATCTACAGTACATGAGCACTG 2400
Qy      2407 TACGTGGGCAAGCGCGGCGCTTGAAGATCGATTAAAGCTTCCCGGGGCTTGAAGACCGGT 2463
Db      2401 TACGTGGGCAAGCGCGGCGCTTGAAGATCGATTAAAGCTTCCCGGGGCTTGAAGACCGGT 2457

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RESULT 3

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US-10-190-305A-39
; Sequence 39, Application US/10190305A
; Publication No. US20030198621A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARRETT, Susan
; APPLICANT: LIAN, Ying
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
; TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USBS THERIOF
; FILE REFERENCE: 2302-18702 / 18702.002
; CURRENT APPLICATION NUMBER: US/10/190,305A
; NUMBER OF SEQ ID NOS: 93
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 39
; LENGTH: 2457
; TYPE: DNA

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; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: p2Poliopt_C
US-10-190-305A-39
Query Match 99.5%; Score 2457; DB 6; Length 2457;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2457; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy      7 GCCACATAGGCGGACCATGAGCCAGGCCCAACATCTGTATGACGCGAC 66
Db      1 GCCACATAGGCGGACCATGAGCCAGGCCCAACATCTGTATGACGCGAC 60
Qy      67 AACTTCAAGGGCCCCAAGCGCATCATAGTCTTCAACTGCGGCAAGAGGGCCATC 126
Db      61 AACTTCAAGGGCCCCAAGCGCATCATAGTCTTCAACTGCGGCAAGAGGGCCATC 120
Qy      127 GCCCGCAACTGCGCGCCCCCGGCAAGAGGGCTGTGAAAGTGCAGGCAAGAGGGCCAC 186
Db      121 GCCCGCAACTGCGCGCCCCCGGCAAGAGGGCTGTGAAAGTGCAGGCAAGAGGGCCAC 180
Qy      187 CAGATGAAGGACTGACACGAGCGCCAGGCCCAACTTCTTCCGAGAGACCTGCTCC 246
Db      181 CAGATGAAGGACTGACACGAGCGCCAGGCCCAACTTCTTCCGAGAGACCTGCTCC 240
Qy      247 CAGGCAAGGGCCCGAGTTCCCGAGCGAGAAACCGCGCAACAGCCCAACAGCCGC 306
Db      241 CAGGCAAGGGCCCGAGTTCCCGAGCGAGAAACCGCGCAACAGCCCAACAGCCGC 300
Qy      307 GAGCTGACAGTGGCGCGCGACAAACCCCGGAGCGAGCGCGCGCGCGCGCGCGCG 366
Db      301 GAGCTGACAGTGGCGCGCGACAAACCCCGGAGCGCGCGCGCGCGCGCGCGCG 360
Qy      367 CTGAACCTTCCCGAGATCAACCTGTGGGAGGCCCCCTGTGTGACATCAAGTGGCG 426
Db      361 CTGAACCTTCCCGAGATCAACCTGTGGGAGGCCCCCTGTGTGACATCAAGTGGCG 420
Qy      427 CAGATCAAGAGGCGCTGTGAGACACCGGCGCGACACCGTGTGTGAGAGATGAGC 486
Db      421 CAGATCAAGAGGCGCTGTGAGACACCGGCGCGACACCGTGTGTGAGAGATGAGC 480
Qy      487 CTGCGCGGCAAGTGAAGCCCAAGATGATCGCGCGCATCGCGCTTCAATCAAGTGGC 546
Db      481 CTGCGCGGCAAGTGAAGCCCAAGATGATCGCGCGCATCGCGCTTCAATCAAGTGGC 540
Qy      547 CAGTACGACGAGTCTGATGAGATCTGGGCAAGAGGCGCATCGGACCGTGTGATC 606
Db      541 CAGTACGACGAGTCTGATGAGATCTGGGCAAGAGGCGCATCGGACCGTGTGATC 600
Qy      607 GGCCCAACCCCGTGAACATCATCGCGCAACATGTGACCCAGCTGGGCTGCACCTG 666
Db      601 GGCCCAACCCCGTGAACATCATCGCGCAACATGTGACCCAGCTGGGCTGCACCTG 660
Qy      667 AACTTCCCATCAGCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGATGAGC 726
Db      661 AACTTCCCATCAGCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGATGAGC 720
Qy      727 CCCAAGGTGAAGCAGTGGCCCCCTGACCGAGGAGAAAGATCAAGGCCCTGACCGGCATCGC 786
Db      721 CCCAAGGTGAAGCAGTGGCCCCCTGACCGAGGAGAAAGATCAAGGCCCTGACCGGCATCGC 780
Qy      787 GAGGATGAGAGAGAGGCAATCAACAGATCGGCCCGGAGAACCTCTACACAC 846
Db      781 GAGGATGAGAGAGAGGCAATCAACAGATCGGCCCGGAGAACCTCTACACAC 840
Qy      847 CCGGTGTTCGCATCAAGAAAGAGACGACCAAGTGGCGCAAGCTGTGACTTCCGC 906
Db      841 CCGGTGTTCGCATCAAGAAAGAGACGACCAAGTGGCGCAAGCTGTGACTTCCGC 900
Qy      907 GAGCTGAACAGGCGCACAGAGATTTCTGGGAGGTGACGTGGGCAATCCCAACCCCGCC 966
Db      901 GAGCTGAACAGGCGCACAGAGATTTCTGGGAGGTGACGTGGGCAATCCCAACCCCGCC 960

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QY 967 GGCCTGAAGAAAGAAAGAGCGTGAACGCTGCTGACGTTGGCGACGCTTACTTCAAGCTG 1026
DB 961 GGCCTGAAGAAAGAAAGAGCGTGAACGCTGCTGACGTTGGCGACGCTTACTTCAAGCTG 1020
QY 1027 CCCCCTGAGACGAGACTTCCCGAAGTACACCGCTTCAACATCCCGAGATCAACAGAG 1086
DB 1021 CCCCCTGAGACGAGACTTCCCGAAGTACACCGCTTCAACATCCCGAGATCAACAGAG 1080
QY 1087 ACCCCGCGCATCCGCTACCAAGTACCAAGTCTGAGCCCGAGAGGCTGAGAGGCGCCAGC 1146
DB 1081 ACCCCGCGCATCCGCTACCAAGTACCAAGTCTGAGCCCGAGAGGCTGAGAGGCGCCAGC 1140
QY 1147 ATCTTCAAGAGCATGACCAAGTCTGAGAGCCCTTCCGCGCCGACCCCGAGATC 1206
DB 1141 ATCTTCAAGAGCATGACCAAGTCTGAGAGCCCTTCCGCGCCGACCCCGAGATC 1200
QY 1207 GTGATCTACCAATACATGAGACGCTGTAACGTTGGCGACGACCTGAGATGCGCCAGAC 1266
DB 1201 GTGATCTACCAATACATGAGACGCTGTAACGTTGGCGACGACCTGAGATGCGCCAGAC 1260
QY 1267 CGCGCAAGATGAGAGAGCTGCGCAAGCACTGCTGCGTGGGCTTCAACACCCCGAC 1326
DB 1261 CGCGCAAGATGAGAGAGCTGCGCAAGCACTGCTGCGTGGGCTTCAACACCCCGAC 1320
QY 1327 AAGAAAGCAGAGAGAGGCGCTTCTGTGATGGGCTACAGCTGACCCCGACAG 1386
DB 1321 AAGAAAGCAGAGAGAGGCGCTTCTGTGATGGGCTACAGCTGACCCCGACAG 1380
QY 1387 TGGACCGTGCAGACCCATCGAGCTGCCCGAAGAGAGAGCTGACCGTGAACCAATCCAG 1446
DB 1381 TGGACCGTGCAGACCCATCGAGCTGCCCGAAGAGAGAGCTGACCGTGAACCAATCCAG 1440
QY 1447 AAGCTGTGGGAGAGCTGAACTGGGCGAGCAGCAGATCTACCCGCGCATCAAGGTGCGCAG 1506
DB 1441 AAGCTGTGGGAGAGCTGAACTGGGCGAGCAGCAGATCTACCCGCGCATCAAGGTGCGCAG 1500
QY 1507 CTGTGCAAGCTGTGCGCGCGCGCAAGGCTTGAACGACATGTGCTCCCTGACCCGAGAG 1566
DB 1501 CTGTGCAAGCTGTGCGCGCGCGCAAGGCTTGAACGACATGTGCTCCCTGACCCGAGAG 1560
QY 1567 GCCGAGCTGAGAGCTGCCCGAAGACCGCGAGATCTTCCGCGGAGACCGCGCGCTGAC 1626
DB 1561 GCCGAGCTGAGAGCTGCCCGAAGACCGCGAGATCTTCCGCGGAGACCGCGCGCTGAC 1620
QY 1627 TACGACCCGAGAGAGCTGTGAGCGAGATCCAGAGCAGAGGCGCAGCAGCTGAGACC 1686
DB 1621 TACGACCCGAGAGAGCTGTGAGCGAGATCCAGAGCAGAGGCGCAGCAGCTGAGACC 1680
QY 1687 TACGAGATCTACAGAGAGGCTTCAAGAACCTGAGAACCGGCAAGTACGCAAGATGCGC 1746
DB 1681 TACGAGATCTACAGAGAGGCTTCAAGAACCTGAGAACCGGCAAGTACGCAAGATGCGC 1740
QY 1747 ACCGCGCAACCAAGCAGTGAAGCAGCTGACCGAGCGCTGAGAGAGATCCGATGAGAG 1806
DB 1741 ACCGCGCAACCAAGCAGTGAAGCAGCTGACCGAGCGCTGAGAGAGATCCGATGAGAG 1800
QY 1807 AGCATGTGATCTGGGCGAAGACCCCAAGTTCCGCTGCGCATCCAGAGAGAGACTGAG 1866
DB 1801 AGCATGTGATCTGGGCGAAGACCCCAAGTTCCGCTGCGCATCCAGAGAGAGACTGAG 1860
QY 1867 GAGACCTGTGAGACCGACTACTGAGCAGGCGCACTGTATCCCGAGTGGAGTTCTGTAAAC 1926
DB 1861 GAGACCTGTGAGACCGACTACTGAGCAGGCGCACTGTATCCCGAGTGGAGTTCTGTAAAC 1920
QY 1927 ACCCGCGCGCTGTGAGAGCTGTGTATCAGCTGAGAGAGGCGCATCATCGCGCGCAG 1986
DB 1921 ACCCGCGCGCTGTGAGAGCTGTGTATCAGCTGAGAGAGGCGCATCATCGCGCGCAG 1980
QY 1987 ACCTTCAAGTGAACGCGCGCGCAACCGGAGACCAAGATCGGCAAGAGCGCGCTAGCTG 2046
DB 1981 ACCTTCAAGTGAACGCGCGCGCAACCGGAGACCAAGATCGGCAAGAGCGCGCTAGCTG 2040
QY 2047 ACCGACCGGCGCGGCAAGAGATGTGTAGGCTGACCGAGACCAACCAAGAGAGCGGAG 2106

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DB 2041 ACCGACCGGCGCGGCAAGAGATGTGTAGGCTGACCGAGACCAACCAAGAGAGCGGAG 2100
QY 2107 CTGAGAGCATTCAGACTGGCGCTTCAAGAGACGCGCGAGCGAGTGAACATGTGACCGAC 2166
DB 2101 CTGAGAGCATTCAGACTGGCGCTTCAAGAGACGCGCGAGCGAGTGAACATGTGACCGAC 2160
QY 2167 AGCGATTCGCGCTGGGATCATTCAGAGCGCGCGCAAGAGAGAGAGAGAGAGTGGT 2226
DB 2161 AGCGATTCGCGCTGGGATCATTCAGAGCGCGCGCAAGAGAGAGAGAGAGAGTGGT 2220
QY 2227 AACGATCATTCAGAGCTGATCAAGAGAGAGAGTGTACTTGAAGTGGTGGCGCC 2286
DB 2221 AACGATCATTCAGAGCTGATCAAGAGAGAGAGTGTACTTGAAGTGGTGGCGCC 2280
QY 2287 CACAGAGGCTATCGCGCGCAAGAGCATTCAGAGAGTGTGAGAGAGGCTCCGCAAG 2346
DB 2281 CACAGAGGCTATCGCGCGCAAGAGCATTCAGAGAGTGTGAGAGAGGCTCCGCAAG 2340
QY 2347 GTGCTGTCTTGAAGCGGATGATGAGCGGCGCATTCGATCTACAGTACAGAGACCTG 2406
DB 2341 GTGCTGTCTTGAAGCGGATGATGAGCGGCGCATTCGATCTACAGTACAGAGACCTG 2400
QY 2407 TACGTGGGCAAGCGCGCGCTAGAGTCAATTAAAGCTTCCGCGGCTAGACCGGT 2463
DB 2401 TACGTGGGCAAGCGCGCGCTAGAGTCAATTAAAGCTTCCGCGGCTAGACCGGT 2457

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RESULT 4
US-09-699-575-31
; Sequence 31, Application US/09899575
; Publication No. US20030223961A1
; GENERAL INFORMATION:
; APPLICANT: Zur Megele, Jan
; APPLICANT: Barnett, Susan W.
; APPLICANT: Egnelbrecht, Susan
; APPLICANT: van Rensburg, Betreijla Janse
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: PP01631.102
; CURRENT APPLICATION NUMBER: US/09/899,575
; PRIOR FILING DATE: 2001-07-05
; PRIOR APPLICATION NUMBER: 09/475,704
; NUMBER OF SEQ ID NOS: 135
; SOFTWARE: Patent in Ver. 2.0
; SEQ ID NO 31
; LENGTH: 2463
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: PR975YM
US-09-699-575-31

Query Match 98.9%; Score 2442.2; DB 3; Length 2463;
Best Local Similarity 99.6%; Pred. No. 0;
Matches 2460; Conservative 0; Mismatches 3; Indels 6; Gaps 1;

QY 1 GTCGAGCGCAACCATGAGCGAGGCGATGAGCCAGGCGCAGCGCCCAATCTGTATGAG 60
DB 1 GTCGAGCGCAACCATGAGCGAGGCGATGAGCCAGGCGCAGCGCCCAATCTGTATGAG 60
QY 61 CGGAGCACTTCAAGGGGCGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGGGC 120
DB 61 CGGAGCACTTCAAGGGGCGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGGGC 120
QY 121 CACATGCGCGCGCAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 180
DB 121 CACATGCGCGCGCAACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 180
QY 181 GGCACCAAGTGAAGAGTGAACCGAGCGCCAGGCGCAACTTCTTCCGCGAGGACTGCGCC 240
DB 181 GGCACCAAGTGAAGAGTGAACCGAGCGCCAGGCGCAACTTCTTCCGCGAGGACTGCGCC 240

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QY 241 TTCCCCCAGGGCAAGGCCCGGAGTTCCCCAGCGAGCAAAACCGGCCCAAGCCCCACC 300
Db 241 TTCCCCCAGGGCAAGGCCCGGAGTTCCCCAGCGAGCAAAACCGGCCCAAGCCCCACC 300
QY 301 AGCCCGAGCTGCAGAGTGCCTGCGGCAAAACCCCGCAGCGAGGCGCGGCGGAGCGCCAG 360
Db 301 AGCCCGAGCTGCAGAGTGCCTGCGGCAAAACCCCGCAGCGAGGCGCGGCGGAGCGCCAG 360
QY 361 GGACCCCTGAACTTCCCCCAAGTCAACCTGTGTGAGAGGCCCTCCGTGTGAAGATCAAGAGT 420
Db 361 GGACCCCTGAACTTCCCCCAAGTCAACCTGTGTGAGAGGCCCTCCGTGTGAAGATCAAGAGT 420
QY 421 GGCGGCGAGATCAAGAGAGGCCCTGTGTGACACCGGCGCGGCAAGACACCGTGTGAGAG 480
Db 421 GGCGGCGAGATCAAGAGAGGCCCTGTGTGACACCGGCGCGGCAAGACACCGTGTGAGAG 480
QY 481 ATGAGCTTGTCCCGGCAATGGAAGCCCAAGATGATCGGCGGATCGGCGCTTCATCAAG 540
Db 481 ATGAGCTTGTCCCGGCAATGGAAGCCCAAGATGATCGGCGGATCGGCGCTTCATCAAG 540
QY 541 GTGGCGGAGTACGACCAATCCTGATTCGAGATCTGGCGGCAAGAGGCCATGCGGCGCTG 600
Db 541 GTGGCGGAGTACGACCAATCCTGATTCGAGATCTGGCGGCAAGAGGCCATGCGGCGCTG 600
QY 601 CTGATCGGCGCCCAACCCCGGTGAACATCATCGGCGCGCAACATGTGACCCAGCTGGGCTGC 660
Db 601 CTGATCGGCGCCCAACCCCGGTGAACATCATCGGCGCGCAACATGTGACCCAGCTGGGCTGC 660
QY 661 ACCCTGAACCTTCCCATCATGCCCTCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGCA 720
Db 661 ACCCTGAACCTTCCCATCATGCCCTCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGCA 720
QY 721 GACGCGCCCAAGTGAAGCAAGTGGCCCTGAACCGAGGAGAAAGATCAAGGCCCTGACCGGC 780
Db 721 GACGCGCCCAAGTGAAGCAAGTGGCCCTGAACCGAGGAGAAAGATCAAGGCCCTGACCGGC 780
QY 781 ATTCTGCGAGAGATGGAAGAGAGGCGCAAGATCAACCAAGATCGGCCCGAGAACCCCTAC 840
Db 781 ATTCTGCGAGAGATGGAAGAGAGGCGCAAGATCAACCAAGATCGGCCCGAGAACCCCTAC 840
QY 841 AACACCCCGTGTTCGTCATCAAGAAAGAGACAGACCAAGTGGCGCAAGCTGTGTGAC 900
Db 841 AACACCCCGTGTTCGTCATCAAGAAAGAGACAGACCAAGTGGCGCAAGCTGTGTGAC 900
QY 901 TTCCGCGAGCTGAACAAGCGACCCCAAGACTTCTGTGGAGTGCAGCTGGGATCCCCAC 960
Db 901 TTCCGCGAGCTGAACAAGCGACCCCAAGACTTCTGTGGAGTGCAGCTGGGATCCCCAC 960
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Db 961 CCCGCGGCGCTGAAGAAAGAGAGCTGACCGTGTGACGTTGGGCGACGCTTACTTC 1020
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Db 1081 AACGAGACCCCGGATCCGCTACCAAGTCAACGTCGTCGCCCCAGGCGCTGAAGGGCGAC 1140
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Db 1141 CCCAGCATCTTTCAGAGCAGATGACCAAGATCCTGAGGCCCTTTCGCGCCCGCAACCCC 1200
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Db 1201 GAGATCGTATCTTACAGTACATGAGCAGCTGTATCGTGGCGAGGACCTGAGATCGGC 1260
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Db 1261 CAGACCCGCGCAAGATGAGAGAGTGGCGAAGCCTGTGCTGGGCTTCAACCAAC 1320
QY 1314 CAGACCCGCGCAAGATGAGAGAGTGGCGAAGCCTGTGCTGGGCTTCAACCAAC 1314
Db 1314 CAGACCCGCGCAAGATGAGAGAGTGGCGAAGCCTGTGCTGGGCTTCAACCAAC 1314

QY 1321 CCCGCAAGAAAGCACAGAAAGAGCCCCCTTCTGTGTGATGGCTACGAGCTGACCCC 1380
Db 1315 CCCGCAAGAAAGCACAGAAAGAGCCCCCTTCTGTGTGATGGCTACGAGCTGACCCC 1374
QY 1381 GACAAATGAGACCTGTGACGCCATGTGAGCTGGCCGAGAAAGAGAGCTGACCTGTAAACAC 1440
Db 1375 GACAAATGAGACCTGTGACGCCATGTGAGCTGGCCGAGAAAGAGAGAGCTGACCTGTAAACAC 1434
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Db 1435 ATCCAGAAAGCTGTGGGCAAGCTGAACCTGGGCGAGCCAGATCTACCCCGGATCAAGAGT 1494
QY 1501 CGCAGCTGTGCAAGCTGTGCTGCGGCGCGCAAGGCCCTGACCGACATGTGCCCCCTGAC 1560
Db 1495 CGCAGCTGTGCAAGCTGTGCTGCGGCGCGCAAGGCCCTGACCGACATGTGCCCCCTGAC 1554
QY 1561 GAGAGGCGCGAGCTGTGAGCTGGCCGAGAACCGCGAGATCTCTGCGGAGGCCGTGCAAGGC 1620
Db 1555 GAGAGGCGCGAGCTGTGAGCTGGCCGAGAACCGCGAGATCTCTGCGGAGGCCGTGCAAGGC 1614
QY 1621 GTGTACTACGACCCCGAGCAAGACCTGGTGGCCGAGATCCAGAAAGCAGAGGCGCAAGCCAG 1680
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QY 1681 TGAACCTTACAGATCTACCAAGAGCCCTTCAAGAACTTGAAGACCGGCAAGTACGCCAAG 1740
Db 1675 TGAACCTTACAGATCTACCAAGAGCCCTTCAAGAACTTGAAGACCGGCAAGTACGCCAAG 1734
QY 1741 ATGGCACCGGCCCAACCAACAGATGAGAGCTGACCCGAGGCCGTGCAAAATTCGCC 1800
Db 1735 ATGGCACCGGCCCAACCAACAGATGAGAGCTGACCCGAGGCCGTGCAAAATTCGCC 1794
QY 1801 ATGAGAGACATCGATCTGTGGGCAAGACCCCGAAGTTCGCTGACCATCAAGAAAGAG 1860
Db 1795 ATGAGAGACATCGATCTGTGGGCAAGACCCCGAAGTTCGCTGACCATCAAGAAAGAG 1854
QY 1861 ACTGGAGAGCCTGTGTGACCGACTACTGGAGGCCCACTTGAATCCCCAGTGGAGTTTC 1920
Db 1855 ACTGGAGAGCCTGTGTGACCGACTACTGGAGGCCCACTTGAATCCCCAGTGGAGTTTC 1914
QY 1921 GTGAACACCCCCCTGTGTGTAAGCTGTGTGTAACAGCTGTGAAGAAAGAGCCATCATCGGC 1980
Db 1915 GTGAACACCCCCCTGTGTGTAAGCTGTGTGTAACAGCTGTGAAGAAAGAGCCATCATCGGC 1974
QY 1981 GCCGAGACCTTCTTACGTGTGAGCGGCGCGCAACCGCGAGACCAAGATCGGCAAGGCCGAC 2040
Db 1975 GCCGAGACCTTCTTACGTGTGAGCGGCGCGCAACCGCGAGACCAAGATCGGCAAGGCCGAC 2034
QY 2041 TACGTGACCGACCGGCGCGCGCAAGATCGTGAAGCTTGAACCGAGACCAACCCAGAG 2100
Db 2035 TACGTGACCGACCGGCGCGCGCGCAAGATCGTGAAGCTTGAACCGAGACCAACCCAGAG 2094
QY 2101 ACCGAGCTGACGAGCCATTCAGCTGGCCCTGTGAGAGCAGCGGACGAGGTGAACATCGTG 2160
Db 2095 ACCGAGCTGACGAGCCATTCAGCTGGCCCTGTGAGAGCAGCGGACGAGGTGAACATCGTG 2154
QY 2161 ACCGACAGCGCTACGCGCCTGTGGGATCATCCAGGCCCGACCGAGCAAGAGCGAGCGAG 2220
Db 2155 ACCGACAGCGCTACGCGCCTGTGGGATCATCCAGGCCCGACCGAGCAAGAGCGAGCGAG 2214
QY 2221 CTGTGTGAACAGATCATCGAGCAGCTGATCAAGAAAGAGAAAGGTGACTTGAAGCTGGTG 2280
Db 2215 CTGTGTGAACAGATCATCGAGCAGCTGATCAAGAAAGAGAAAGGTGACTTGAAGCTGGTG 2274
QY 2281 CCCGCCCAAGAGGCAATCGCGGCGCAAGAGCATTCGACAAAGCTGTGTGAGCAAGGCGATC 2340
Db 2275 CCCGCCCAAGAGGCAATCGCGGCGCAAGAGCATTCGACAAAGCTGTGTGAGCAAGGCGATC 2334
QY 2341 CGCAAGGTCGTGTTCTGTGAGCGGATGAGTGGCGGCAATCGGATCTAACCAATATGAGAC 2400
Db 2335 CGCAAGGTCGTGTTCTGTGAGCGGATGAGTGGCGGCAATCGGATCTAACCAATATGAGAC 2394
QY 2401 GACCTGTATCGTGGCAGCGCGCCCTAGATTCGATTAAAGCTTCCCGGCGCTAGCACCC 2460
Db 2401 GACCTGTATCGTGGCAGCGCGCCCTAGATTCGATTAAAGCTTCCCGGCGCTAGCACCC 2460

Db 2395 GACCGTGTAGTGGGAGGCGCGCCCTAGGATCGATTAAAGCTTCCGGGGCTGACACC 2454
 QY 2461 GGTGAATTC 2469
 Db 2455 GGTGAATTC 2463

RESULT 5
 US-10-190-435-44
 / Sequence 44, Application US/10190435
 / Publication No. US20030143248A1
 / GENERAL INFORMATION:
 / APPLICANT: ZUR MEGEDE, Jan
 / APPLICANT: BARNETT, Susan W.
 / APPLICANT: LIAN, Ying
 / APPLICANT: ENGELBRECHT, Susan
 / APPLICANT: VAN RENSBURG, Estrellita J.
 / TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
 / TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
 / FILE REFERENCE: P18133.003 / 2302-18133
 / CURRENT APPLICATION NUMBER: US/10/190,435
 / CURRENT FILING DATE: 2002-12-30
 / NUMBER OF SEQ ID NOS: 319
 / SOFTWARE: PatentIn Ver. 2.0
 / SEQ ID NO 44
 / LENGTH: 2457
 / TYPE: DNA
 / ORGANISM: Artificial Sequence
 / FEATURE:
 / OTHER INFORMATION: Description of Artificial Sequence: p2Polopt_YM_C
 US-10-190-435-44

Query Match 98.6%; Score 2434.6; DB 6; Length 2457;
 Best Local Similarity 99.6%; Pred. No. 0;
 Matches 2453; Conservative 0; Mismatches 4; Indels 6; Gaps 1;

QY 1 GTGCAAGCCACCATGCGCCGAGGCGCATGAGGCCAGGCCACCGCCCAACATCTTGATGAG 60
 Db 1 GTGCAAGCCACCATGCGCCGAGGCGCATGAGGCCAGGCCACCGCCCAACATCTTGATGAG 60
 QY 61 CGGAGCACTTCAAGGGGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGGGC 120
 Db 61 CGGAGCACTTCAAGGGGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGGGC 120
 QY 121 CAGATGCGCGGCACTGCG 180
 Db 121 CAGATGCGCGGCACTGCG 180
 QY 181 GGCACCAAGTGAAGAGCTGACCGAGCGCGCAGGCCCAACTTCTTCGCGAGGACTGGCC 240
 Db 181 GGCACCAAGTGAAGAGCTGACCGAGCGCGCAGGCCCAACTTCTTCGCGAGGACTGGCC 240
 QY 241 TTCCCGCAGGCGCAAGGCGCGCGAGTTCCCGAGGAGCAAGCGCGCAACAGCCCCACC 300
 Db 241 TTCCCGCAGGCGCAAGGCGCGCGAGTTCCCGAGGAGCAAGCGCGCAACAGCCCCACC 300
 QY 301 AGCGCGAGCTGCGAGGTGCGCGCGCGCGCAACCGCGCGCGCGCGCGCGCGCGCGCGCG 360
 Db 301 AGCGCGAGCTGCGAGGTGCGCGCGCGCGCAACCGCGCGCGCGCGCGCGCGCGCGCGCG 360
 QY 361 GGCACCTGAACCTTCCCGCAGATCACTCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCG 420
 Db 361 GGCACCTGAACCTTCCCGCAGATCACTCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCG 420
 QY 421 GCGCGCGAGTCAAGAGGCG 480
 Db 421 GCGCGCGAGTCAAGAGGCG 480
 QY 481 ATGAGCTGCG 540
 Db 481 ATGAGCTGCG 540

QY 541 GTGCGCGAGTACGACCAAGATCTGATCGAGATCTGCGCGCAAGAGGCCATCGGACCGGTG 600
 Db 541 GTGCGCGAGTACGACCAAGATCTGATCGAGATCTGCGCGCAAGAGGCCATCGGACCGGTG 600
 QY 601 CTGATCGGCG 660
 Db 601 CTGATCGGCG 660
 QY 661 ACCCTGAACCTTCCCGCAGATCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 720
 Db 661 ACCCTGAACCTTCCCGCAGATCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 720
 QY 721 GACG 780
 Db 721 GACG 780
 QY 781 ATCTGCGAGAGTGAAGAGGCGCAAGATCACCAAGATCGCGCGCGCGCGCGCGCGCGCGCG 840
 Db 781 ATCTGCGAGAGTGAAGAGGCGCAAGATCACCAAGATCGCGCGCGCGCGCGCGCGCGCGCG 840
 QY 841 AACACCG 900
 Db 841 AACACCG 900
 QY 901 TTCCCGGAGCTGAAGAGCGCACCGGACCTCTGAGAGGTGCACTGCGCGCGCGCGCGCGCG 960
 Db 901 TTCCCGGAGCTGAAGAGCGCACCGGACCTCTGAGAGGTGCACTGCGCGCGCGCGCGCGCG 960
 QY 961 CCG 1020
 Db 961 CCG 1020
 QY 1021 AGCGTCCCGTGAAGAGGAGCTTCCGCAAGTACCGCGCGCGCGCGCGCGCGCGCGCGCG 1080
 Db 1021 AGCGTCCCGTGAAGAGGAGCTTCCGCAAGTACCGCGCGCGCGCGCGCGCGCGCGCGCG 1080
 QY 1081 AACGAGACCG 1140
 Db 1081 AACGAGACCG 1140
 QY 1141 CCGAGATCTTCAAGAGGAGGAGCTTCCGCAAGTACCGCGCGCGCGCGCGCGCGCGCGCG 1200
 Db 1141 CCGAGATCTTCAAGAGGAGGAGCTTCCGCAAGTACCGCGCGCGCGCGCGCGCGCGCGCG 1200
 QY 1201 GAGATGATGATCAAGTACGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAG 1260
 Db 1201 GAGATGATGATCAAGTACGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAGCTGAGAG 1260
 QY 1261 CAGACCG 1320
 Db 1261 CAGACCG 1320
 QY 1321 CCGGACCAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1380
 Db 1321 CCGGACCAAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1380
 QY 1381 GACAGGTGAGCCGTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1440
 Db 1381 GACAGGTGAGCCGTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1440
 QY 1435 ATCCAGAGGAGTGAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1494
 Db 1435 ATCCAGAGGAGTGAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1494
 QY 1495 GCGCAGCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1554
 Db 1495 GCGCAGCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1554
 QY 1561 GAGAGGCGCGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1620
 Db 1561 GAGAGGCGCGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1620
 QY 1621 GTGTACTAGACCCCGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1680
 Db 1621 GTGTACTAGACCCCGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1680

Db 61 CGCAGCACTTCAAGGGCCCCAGCGCATCATGCTCTTCAACTGCGGCAAGAGGC 120
Qy 121 CACATCGCCGCGAACTGCGCGGCCCCCGCAAGAGGCTGTGGAAATGGCGCAAGAG 180
Db 121 CACATCGCCGCGAACTGCGCGGCCCCCGCAAGAGGCTGTGGAAATGGCGCAAGAG 180
Qy 181 GGCACACGATGAAAGGACTGCAACCGAGCGCAAGGCCAATTCTTCCGCGAGGACTTGGCC 240
Db 181 GGCACACGATGAAAGGACTGCAACCGAGCGCAAGGCCAATTCTTCCGCGAGGACTTGGCC 240
Qy 241 TTTCCCGCAGGGCAAGGCCCCGAGATTCTCCCGAGCGAGAAACCGCGGCCAACAGCCCCACC 300
Db 241 TTTCCCGCAGGGCAAGGCCCCGAGATTCTCCCGAGCGAGAAACCGCGGCCAACAGCCCCACC 300
Qy 301 AGCGCGAGCTGCAAGGTGCGCGCGACAAACCCCGCAGCGAGGCGCGGCGAGCGCCAG 360
Db 301 AGCGCGAGCTGCAAGGTGCGCGCGACAAACCCCGCAGCGAGGCGCGGCGAGCGCCAG 360
Qy 361 GGCACCCCTGAACTTCCCGCAGATCAACCTGTGGCAGCGCCCCCTGTGGAGCATCAAGGTG 420
Db 361 GGCACCCCTGAACTTCCCGCAGATCAACCTGTGGCAGCGCCCCCTGTGTGAGCATCAAGGTG 420
Qy 421 GCGCGCGAGATCAAGAGAGCCCTGTGGACACCGCGCGCGAGACACCTGTGTGGAGAG 480
Db 421 GCGCGCGAGATCAAGAGAGCCCTGTGGACACCGCGCGCGAGACACCTGTGTGGAGAG 480
Qy 481 ATGAGCCTGCGCGGCAAGTGAAGGCCCAAGATGATCGCGGCGATCGCGGCTTCAACAAG 540
Db 481 ATGAGCCTGCGCGGCAAGTGAAGGCCCAAGATGATCGCGGCGATCGCGGCTTCAACAAG 540
Qy 541 GTGCGCGAGTACGACAGATCCTGATCGAGATCTTGCGGCAAGAGGCCATCGGACCGTG 600
Db 541 GTGCGCGAGTACGACAGATCCTGATCGAGATCTTGCGGCAAGAGGCCATCGGACCGTG 600
Qy 601 CTGATCGGCCCCACCCCGTGAACATCATCGGCGCGCAACATGCTGAGCCAGCTGGGCTGC 660
Db 601 CTGATCGGCCCCACCCCGTGAACATCATCGGCGCGCAACATGCTGAGCCAGCTGGGCTGC 660
Qy 661 ACCCTGAACCTTCCCATCAGGCCCCCATCGAGACCGTGGCCGTGAAGCTGAAGCCCGGCAATG 720
Db 661 ACCCTGAACCTTCCCATCAGGCCCCCATCGAGACCGTGGCCGTGAAGCTGAAGCCCGGCAATG 720
Qy 721 GACGCGCCCAAGGTGAAGCAAGTGGCCCTGACCGAGAGAAAGATCAAGGCCCTGACCGCC 780
Db 721 GACGCGCCCAAGGTGAAGCAAGTGGCCCTGACCGAGAGAAAGATCAAGGCCCTGACCGCC 780
Qy 781 ATCTGCGAGAGATGGAAGAGGCGCAAGATCAACCAAGATCGGCCCCGAGAACCCCTAC 840
Db 781 ATCTGCGAGAGATGGAAGAGGCGCAAGATCAACCAAGATCGGCCCCGAGAACCCCTAC 840
Qy 841 AACACCCCCGTGTGCGCATCAAGAAAGAGCAGACCAAGTGGCGCAAGCTGGTGGAC 900
Db 841 AACACCCCCGTGTGCGCATCAAGAAAGAGCAGACCAAGTGGCGCAAGCTGGTGGAC 900
Qy 901 TTTCCGCGAGCTGAACCAAGCGCACTTCTTGGAGGTGCAAGCTGGAGATCCCCAC 960
Db 901 TTTCCGCGAGCTGAACCAAGCGCACTTCTTGGAGGTGCAAGCTGGAGATCCCCAC 960
Qy 961 CCGCGCGGCTGGAAGAAAGAGGCGTGAACCGTGTGAGAGGTGGGAGACGCTTACTTC 1020
Db 961 CCGCGCGGCTGGAAGAAAGAGGCGTGAACCGTGTGAGAGGTGGGAGACGCTTACTTC 1020
Qy 1021 AGCGTGGCCCTGGAAGAGGACTTCCGCAAGTACACCGGCTTCAACCATCCCAAGCATCAAC 1080
Db 1021 AGCGTGGCCCTGGAAGAGGACTTCCGCAAGTACACCGGCTTCAACCATCCCAAGCATCAAC 1080
Qy 1081 AACGAGACCCCGGCGATCGCTACCAAGTACCAAGTCTGCGCCCAAGGCTGGAAGGCGAGC 1140
Db 1081 AACGAGACCCCGGCGATCGCTACCAAGTACCAAGTCTGCGCCCAAGGCTGGAAGGCGAGC 1140
Qy 1141 CCGCAGCATCTTCAAGAGCAGATGACCAAGATCCTGAGGCGCTTCCGCGCCGCAACCCC 1200
Db 1141 CCGCAGCATCTTCAAGAGCAGATGACCAAGATCCTGAGGCGCTTCCGCGCCGCAACCCC 1200

Qy 1201 GAGATCGGATCTACCAAGTACATGAGACGACTGTACGTGGGACAGCACTTGGAGATCGGC 1260
Db 1201 GAGATCGGATCTACCA-----GGCCCCCTGTACGTGGGACAGCACTTGGAGATCGGC 1254
Qy 1261 CAGCACCGCGCGCAAGATCGAGAGCTGGCAAGCACTGTGCGCTGGGCTTCAACACC 1320
Db 1255 CAGCACCGCGCGCAAGATCGAGAGCTGGCAAGCACTGTGCGCTGGGCTTCAACACC 1314
Qy 1321 CCGCAGAAAGAGCACAGAAAGAGCCCCCTTCTGTGGATGAGGCTACGAGCTGACCCCC 1380
Db 1315 CCGCAGAAAGAGCACAGAAAGAGCCCCCTTCTGTGGATGAGGCTACGAGCTGACCCCC 1368
Qy 1381 GACAAGTGAACCTGTGCAAGCCCATGAGCTGCGCGAGAGAGAGAGAGAGCTGAGACGAC 1440
Db 1369 GACAAGTGAACCTGTGCAAGCCCATGAGCTGCGCGAGAGAGAGAGAGAGCTGAGACGAC 1428
Qy 1441 ATCCAGAAAGCTGTGGGCAAGCTGAATGGGCGACCGCATCTACCTCGGCAATCAAGTGG 1500
Db 1429 ATCCAGAAAGCTGTGGGCAAGCTGAATGGGCGACCGCATCTACCTCGGCAATCAAGTGG 1488
Qy 1501 GCGCAGCTGTGCAAGCTGTGCGCGGCGCAAGGCGCCGAGCATGTGCTCCCTGAC 1560
Db 1489 GCGCAGCTGTGCAAGCTGTGCGCGGCGCAAGGCGCCGAGCATGTGCTCCCTGAC 1548
Qy 1561 GAGAGGCGCGAGCTGTGAGCTGGCCGAGAACCGCGAGATCTGCGCGAGCCCGTGCACGCG 1620
Db 1549 GAGAGGCGCGAGCTGTGAGCTGGCCGAGAACCGCGAGATCTGCGCGAGCCCGTGCACGCG 1608
Qy 1621 GTGTACTACGACCCCGCAGAGAGACCTGTGTGGCGAGATCCAGAAAGAGGCGACAGCCAG 1680
Db 1609 GTGTACTACGACCCCGCAGAGAGACCTGTGTGGCGAGATCCAGAAAGAGGCGACAGCCAG 1668
Qy 1681 TGGACCTTACGAGATCTACAGAGAGCCCTTCAAGAAACCTGAAGACCGGCAAGTACGCCAAG 1740
Db 1669 TGGACCTTACGAGATCTACAGAGAGCCCTTCAAGAAACCTGAAGACCGGCAAGTACGCCAAG 1728
Qy 1741 ATGCGCACCGGCGCACACCAAGAGAGAGCTGACCGAGGCGGTGCAAGAAATCGCC 1800
Db 1729 ATGCGCACCGGCGCACACCAAGAGAGAGCTGACCGAGGCGGTGCAAGAAATCGCC 1788
Qy 1801 ATGAGAGCATGTGATCTGGGGCAAGACCCCGCAAGTTCCGCTGCGCATCAAGAAAGAG 1860
Db 1789 ATGAGAGCATGTGATCTGGGGCAAGACCCCGCAAGTTCCGCTGCGCATCAAGAAAGAG 1848
Qy 1861 ACCTGGGAGACCTGTGGAGCCGATACGAGAGGCGACCTGGATCCCGGAGTGGAGTTTC 1920
Db 1849 ACCTGGGAGACCTGTGGAGCCGATACGAGAGGCGACCTGGATCCCGGAGTGGAGTTTC 1908
Qy 1921 GTGAACACCCCCCTGTGTGAAGCTGTGTACCAAGCTGAGAAAGAGCCCATCATCGGC 1980
Db 1909 GTGAACACCCCCCTGTGTGAAGCTGTGTGTACCAAGCTGAGAAAGAGCCCATCATCGGC 1968
Qy 1981 GCCGAGACCTTCTACGTGAGAGCGCGCGCAACCGCGAGACCAAGATGTGGAAAGCGCGC 2040
Db 1969 GCCGAGACCTTCTACGTGAGAGCGCGCGCAACCGCGAGACCAAGATGTGGAAAGCGCGC 2028
Qy 2041 TACGTGACCGAGCGGCGGCGGCAAGATGTGTGAGGCTGACCGAGACCAACCAAGAG 2100
Db 2029 TACGTGACCGAGCGGCGGCGGCAAGATGTGTGAGGCTGACCGAGACCAACCAAGAG 2088
Qy 2101 ACCGAGCTGCAAGGCGATCAAGCTGGCCCTGCAAGAGCAGCGGAGAGAGTGAACATCGTG 2160
Db 2089 ACCGAGCTGCAAGGCGATCAAGCTGGCCCTGCAAGAGCAGCGGAGAGAGTGAACATCGTG 2148
Qy 2161 ACCGACAGCGAGTACGCGCTTGGGCAATCAAGGCGCAAGCCCGACAGAGCGAGCGAG 2220
Db 2149 ACCGACAGCGAGTACGCGCTTGGGCAATCAAGGCGCAAGCCCGACAGAGCGAGCGAG 2208
Qy 2221 CTGTGTGAACCGAGATCATGAGACAGCTGATCAAGAAAGAGAGGTGTACTGAGCTGGGTG 2280
Db 2209 CTGTGTGAACCGAGATCATGAGACAGCTGATCAAGAAAGAGAGGTGTACTGAGCTGGGTG 2268


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QY 2281 CCCGCCCAAGGCGCATGCGCGCGCAACGAGCATCGACAACTGTGTGAGCAAGGGCATC 2340
DB 2269 CCCGCCCAAGGCGCATGCGCGCGCAACGAGCATCGACAACTGTGTGAGCAAGGGCATC 2328
QY 2341 CGCAAGGCGCTGCTTCTGTGAGCGGCGCATCGATGCGCGCATGATCTACACGATGAC 2400
DB 2329 CGCAAGGCGCTGCTTCTGTGAGCGGCGCATCGATGCGCGCATGATCTACACGATGAC 2388
QY 2401 GACCTGTACGTGGGCGCGCGCGCTGTAGATCGATTAAAGCTTCCGCGGCTAGCACC 2460
DB 2389 GACCTGTACGTGGGCGCGCGCGCTGTAGATCGATTAAAGCTTCCGCGGCTAGCACC 2448
QY 2461 GGTGAATTC 2469
DB 2449 GGTGAATTC 2457

RESULT 8
US-10-190-435-43
; Sequence 43, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Estrelita J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT APPLICATION NUMBER: US/10/190,435
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 43
; LENGTH: 2445
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: p2Pol.opt.YMMW_C
US-10-190-435-43

Query Match 97.3%; Score 2401.8; DB 6; Length 2445;
Best Local Similarity 99.2%; Pred. No. 0;
Matches 2438; Conservative 0; Mismatches 7; Indels 12; Gaps 2;

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QY 4427 CAGATCAAGAGGCGCTGTGTGAGCAGCGGCGCGAGCAGACCGGTGTGTGAGAGATGAGC 4486
DB 4421 CAGATCAAGAGGCGCTGTGTGAGCAGCGGCGCGAGCAGACCGGTGTGTGAGAGATGAGC 4480
QY 4487 CTGCGCGCAAGTGAAGAGCCCAAGATGATCGCGCGCATCGCGGCTTCAATCAAGGTGCC 546
DB 4481 CTGCGCGCAAGTGAAGAGCCCAAGATGATCGCGCGCATCGCGGCTTCAATCAAGGTGCC 540
QY 5447 CAGTACGACAGATCTGTATCGAGATCTGCGCGCAAGAGGCCATGTGGCAACCGTGTGATC 606
DB 5441 CAGTACGACAGATCTGTATCGAGATCTGCGCGCAAGAGGCCATGTGGCAACCGTGTGATC 600
QY 607 GGGCCCCACCCCGTGAACATCATCGGCGCGCAACATGTGACCCAGCTGAGGCTGACCCCTG 666
DB 601 GGGCCCCACCCCGTGAACATCATCGGCGCGCAACATGTGACCCAGCTGAGGCTGACCCCTG 660
QY 667 AACTTCCCATGAGCCCATCGAGACCGGTGACCGGTGAAGCTGAAAGCCCGCATGAGCGGC 726
DB 661 AACTTCCCATGAGCCCATCGAGACCGGTGACCGGTGAAGCTGAAAGCCCGCATGAGCGGC 720
QY 727 CCAGAGGTGAGCAGTGGCCCTGTGACCGAGAGAAAGATCAAGGCTTGAACCGCATCTGC 786
DB 721 CCAGAGGTGAGCAGTGGCCCTGTGACCGAGAGAAAGATCAAGGCTTGAACCGCATCTGC 780
QY 787 GAGGAGATGAGAGAGAGGCGCAAGATCAACCAAGATCGGCGCGCAAGCCCTTACACACC 846
DB 781 GAGGAGATGAGAGAGAGGCGCAAGATCAACCAAGATCGGCGCGCAAGCCCTTACACACC 840
QY 847 CCGGTGTTGCGCATCAAGAGAGAGCAGCAGCAACAGTGGCGCAAGCTGTGTGACTTCCG 906
DB 841 CCGGTGTTGCGCATCAAGAGAGAGCAGCAGCAACAGTGGCGCAAGCTGTGTGACTTCCG 900
QY 907 GAGCTGAACAGCGCAGCCAGAGACTTGTGAGGTGACGTGGGCAATCCCCACCCCGC 966
DB 901 GAGCTGAACAGCGCAGCCAGAGACTTGTGAGGTGACGTGGGCAATCCCCACCCCGC 960
QY 967 GGCCTGAAGAGAGAGAGCGGTGACCGGTGTGAGGTGGAGAGCGCTTACTTCAAGGTG 1026
DB 961 GGCCTGAAGAGAGAGAGCGGTGACCGGTGTGAGGTGGAGAGCGCTTACTTCAAGGTG 1020
QY 1027 CCGCTGAGAGAGACTTCCGCAAGTACACCGGCTTCAACATCCCGAGATCAACAGAG 1086
DB 1021 CCGCTGAGAGAGACTTCCGCAAGTACACCGGCTTCAACATCCCGAGATCAACAGAG 1080
QY 1087 ACCCCCGGATCGCTTACAGTACAGAGTGTGCGCCGAGGGCTGAAAGGCGAGCCCGAC 1146
DB 1081 ACCCCCGGATCGCTTACAGTACAGAGTGTGCGCCGAGGGCTGAAAGGCGAGCCCGAC 1140
QY 1147 ATCTTCAAGAGCAGATGACCAAGATCTGTGAGGCTTCCGCGCGCAACCCCGAGATC 1206
DB 1141 ATCTTCAAGAGCAGATGACCAAGATCTGTGAGGCTTCCGCGCGCAACCCCGAGATC 1200
QY 1207 GTGATTCACAGTACATGAGACGACTGTAGTGTGGGAGAGCACTGTGAGATCGGCGAGC 1266
DB 1201 GTGATTCACGACTTGTGAGTGTGGGAGAGCACTGTGAGATCGGCGAGC 1254
QY 1267 CGCGCAAGTCAAGAGAGTGTGCAAGAGCTTGTGCGCTGTGAGGCTTCAACACCCCGAC 1326
DB 1255 CGCGCAAGTCAAGAGAGTGTGCAAGAGCTTGTGCGCTGTGAGGCTTCAACACCCCGAC 1314
QY 1327 AAGAGCACCAAGAGAGGCGGCTTCTGTGTGATGTGGCTTCAAGCTGTGACCCCGCAAG 1386
DB 1315 AAGAGCACCAAGAGAGGCGGCTTCTGTGTGATGTGGCTTCAAGCTGTGACCCCGCAAG 1368
QY 1387 TGAACGTTGAGCGCATCGAGTGTGCGAGAGAGAGAGTGTGACCGGTGAACGATCTCAG 1446
DB 1369 TGAACGTTGAGCGCATCGAGTGTGCGAGAGAGAGAGTGTGACCGGTGAACGATCTCAG 1428
QY 1447 AAGCTGTGTGAGAGCTGAACTGTGAGCGAGCATGATCTTACCCGCGCATCAAGGTGCGCAG 1506
DB 1429 AAGCTGTGTGAGAGCTGAACTGTGAGCGAGCATGATCTTACCCGCGCATCAAGGTGCGCAG 1488

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QY	1507	TTGTGCAAGCTGTGCGGGGGGCGCCAAAGGCGCTGACCGGACATCTGTGCGCCCTGACCGAAGGAG	1566
Db	1489	CTGTGTCAAGCTGTGTGCGGGCGCCAAAGGCGCTGACCGGACATCTGTGCGCCCTGACCGAAGGAG	1548
QY	1567	GCCGAGCTGTGAGCTGTGGCCGAGAACCCGCGAGATCTCTGCCCGAGGCCGTGTCAAGCGCGCTGTAC	1626
Db	1549	GCCGAGCTGTGAGCTGTGGCCGAGAACCCGCGAGATCTCTGCCCGAGGCCGTGTCAAGCGCGCTGTAC	1608
QY	1627	TACGACCCCGACGAGGACCTTGGTGGCCGAGATCCAGANGCAGGGCCACGACCGAGTGGAC	1686
Db	1609	TACGACCCCGACGAGGACCTTGGTGGCCGAGATCCAGANGCAGGGCCACGACCGAGTGGAC	1668
Db	1669	TACCAAGATCTACCAAGAGCGCTTCAAGAACCTGAGAGACCGGCGAATAGCCAAAGTGGCG	1728
QY	1747	ACCGGCCACACCAAGAGAGTGTGAGAGAGCTGACCCGAGGCCGTGTCAAGAAATCGCCATGTGAG	1806
Db	1729	ACCGGCCACACCAAGAGAGTGTGAGAGAGCTGACCCGAGGCCGTGTCAAGAAATCGCCATGTGAG	1788
QY	1807	AGCATCTGTGATCTGTGGGGGAGAGACCCCCAAAGTTCCGCGCTGTGCCATTCAGAAAGAGACCTTGG	1866
Db	1789	AGCATCTGTGATCTGTGGGGGAGAGACCCCCAAAGTTCCGCGCTGTGCCATTCAGAAAGAGACCTTGG	1848
QY	1867	GAGACCTGTGTGTGACCGGACTTACTGTGTGAGGCGCACCTGTGGATCCCGGATGTGGAGATTCTGTGAC	1926
Db	1849	GAGACCTGTGTGTGACCGGACTTACTGTGTGAGGCGCACCTGTGGATCCCGGATGTGGAGATTCTGTGAC	1908
QY	1927	ACCCCCCGCTGTGTGAACTGTGTGTGATCCAGAGCTGTGAGAGAGAGCCCATGTGTGTGCGCGCCAG	1986
Db	1909	ACCCCCCGCTGTGTGTGAACTGTGTGTGATCCAGAGCTGTGAGAGAGAGCCCATGTGTGTGCGCGCCAG	1968
QY	1987	ACCTTCTTACGTGTGACGCGCGCGCGCCAAACCGCGAGACCAAGATCTGTGTGAGAGCGCGCTTACGTTG	2046
Db	1969	ACCTTCTTACGTGTGACGCGCGCGCGCCAAACCGCGAGACCAAGATCTGTGTGAGAGCGCGCTTACGTTG	2028
QY	2047	ACCGACCGGGGCGCGCGCACAAGATCTGTGAGCCGTGACCGGAGACCAACCAACAAAGACCGAG	2106
Db	2029	ACCGACCGGGGCGCGCGCACAAGATCTGTGAGCCGTGACCGGAGACCAACCAACAAAGACCGAG	2088
QY	2107	CTGTGAGGCGCATTCAGACTGTGCGCTGTGTGAGAGACAGCGCGCACCGAGGTGAACATCGTGTGACGAC	2166
Db	2089	CTGTGAGGCGCATTCAGACTGTGCGCTGTGTGAGAGACAGCGCGCACCGAGGTGAACATCGTGTGACGAC	2148
QY	2167	AGCCAGTACGCGCTGTGGGATCATTCAGGCGCCAGCGCCGACAGAGCGGAGCGAGCTGTGTG	2226
Db	2149	AGCCAGTACGCGCTGTGGGATCATTCAGGCGCCAGCGCCGACAGAGCGGAGCGAGCTGTGTG	2208
QY	2227	AACCCAGATCATTCAGACAGCTGTATCAAGAAAGAGAGGTGTATCTGTGACTGTGGTGTGCCGCC	2286
Db	2209	AACCCAGATCATTCAGACAGCTGTATCAAGAAAGAGAGGTGTATCTGTGACTGTGGTGTGCCGCC	2268
QY	2287	CACAAAGGCGATCTGGCGGCAACGAGCAGATTCGACAGCTGTGTGAGCAAGGCGCATCCGCAAG	2346
Db	2269	CACAAAGGCGATCTGGCGGCAACGAGCAGATTCGACAGCTGTGTGAGCAAGGCGCATCCGCAAG	2328
QY	2347	GTCCTGTTCTGTGACGCGATCATGTATGTGTGAGATCTTAAAGCTTCCCGGGGCTTACGACCGGT	2406
Db	2329	GTCCTGTTCTGTGACGCGATCATGTATGTGTGAGATCTTAAAGCTTCCCGGGGCTTACGACCGGT	2388
QY	2407	TACGTGTGCGAGCGCGCGCCCTTACGATTCGATTAAAGCTTCCCGGGGCTTACGACCGGT	2463
Db	2389	TACGTGTGCGAGCGCGCGCCCTTACGATTCGATTAAAGCTTCCCGGGGCTTACGACCGGT	2445

RESULT 9
US-10-190-305A-37
; Sequence 37, Application US/10190305A
; Publication No. US20030198621A1

; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan
; APPLICANT: LIAN, Ying

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1  TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
2  TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
3  FILE REFERENCE: 2302-18702 / 18702.002
4  CURRENT APPLICATION NUMBER: US/10/190,305A
5  CURRENT FILING DATE: 2002-07-05
6  NUMBER OF SEQ ID NOS: 93
7  SOFTWARE: PatentIn Ver. 2.0
8  SEQ ID NO 37
9  LENGTH: 2445
10 TYPE: DNA
11 ORGANISM: Artificial Sequence
12 FEATURE:
13 OTHER INFORMATION: Description of Artificial Sequence:
14 OTHER INFORMATION: p2Pol.opt.YMMM_C
15 US-10-190-305A-37
16
17 Query Match          97.3%; Score 2401.8; DB 6; Length 2445;
18 Best Local Similarity 99.2%; Pred. No. 0;
19 Matches 2438; Conservative 0; Mismatches 7; Indels 12; Gaps 2

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Query Match	Similarity	97.3%	Score	2401.8	DB	6	Length	2445	
Match	Local	Similarity	99.2%	Pred.	No. of				
Match	2438	Conservative	0	Mismatches	7	Indels	12	Gaps	2
QY	7	GCACACATGCGCGAGCCCATGAGCCAGGCCACACAGCGCCAAATCTCTGATGCAAGCGACGC	66						
DB	1	GCACACATGCGCGAGCCCATGAGCCAGGCCACACAGCGCCAAATCTCTGATGCAAGCGACGC	60						
QY	67	AACCTTCAAGGGCCCCCAAGCCGATCATCAAGTGTCTTCAACTGCGGCAGAGAGGCCACATC	126						
DB	61	AACCTTCAAGGGCCCCCAAGCCGATCATCAAGTGTCTTCAACTGCGGCAGAGAGGCCACATC	120						
QY	127	GCCGCAACTCTCGCGCCCCCGCCCGAAGAGGGCTGTGGAAGTGTGTGCGCAAGAGGGCCAC	186						
DB	121	GCCGCAACTCTCGCGCCCCCGCCCGAAGAGGGCTGTGGAAGTGTGTGCGCAAGAGGGCCAC	180						
QY	187	CAGATGAAGAAGCTGTGACCCGAGCGCCAGGCCAACTTCTTCCGCGAGGAACCTTGCTTCCCC	246						
DB	181	CAGATGAAGAAGCTGTGACCCGAGCGCCAGGCCAACTTCTTCCGCGAGGAACCTTGCTTCCCC	240						
QY	247	CAGGGCAAGCGCGCGAGTTCCTCCAGCGAGAGAGAAACGCGCGCCAAACGCGCCACAGCGCG	306						
DB	241	CAGGGCAAGCGCGCGAGTTCCTCCAGCGAGAGAGAAACGCGCGCCAAACGCGCCACAGCGCG	300						
QY	307	GAGCTGCAGATGCGCGCGGCAACCCCGCAGCGAGAGCGCGCGCGCCAGAGGCCCAAGGCACC	366						
DB	301	GAGCTGCAGATGCGCGCGGCAACCCCGCAGCGAGAGCGCGCGCGCCAGAGGCCCAAGGCACC	360						
QY	367	CTGAACCTTCCCCCAGATACCTCTGTGTGAGAGGGCCCCCTGTGTGAGATCAAAAGTGGCGGC	426						
DB	361	CTGAACCTTCCCCCAGATACCTCTGTGTGAGAGGGCCCCCTGTGTGAGATCAAAAGTGGCGGC	420						
QY	427	CAGATCAAGAGAGCGCTGTGGAACACCGCGCGCCAGACGACCTGTGTGGAAGATGTAGC	486						
DB	421	CAGATCAAGAGAGCGCTGTGTGGAACACCGCGCGCCAGACGACCTGTGTGGAAGATGTAGC	480						
QY	487	CTGCCCGGCAAGTGTGAAGCCCCAAGATGTATCGCGCGCATCGCGCGCTTTCATCAAGTGTGCG	546						
DB	481	CTGCCCGGCAAGTGTGAAGCCCCAAGATGTATCGCGCGCATCGCGCGCTTTCATCAAGTGTGCG	540						
QY	547	CAGTACGACGAGATCTGTGATGTGAGATCTGTGGGCAAGAAAGGCATTCGCGACCGTGTGATC	606						
DB	541	CAGTACGACGAGATCTGTGATGTGAGATCTGTGGGCAAGAAAGGCATTCGCGACCGTGTGATC	600						
QY	607	GGCGCCACCCCGGTGAACATCATCGCGCGCAACATGTCTGACCCAGCTGGGCTTGACCCCTG	666						
DB	601	GGCGCCACCCCGGTGAACATCATCGCGCGCAACATGTCTGACCCAGCTGGGCTTGACCCCTG	660						
QY	667	AACCTTCCCATCAGCCCCCATGTGACACCGTGTGCGCGCGGTGAAGCTGGAAGCCCGGACATGGA	726						
DB	661	AACCTTCCCATCAGCCCCCATGTGACACCGTGTGCGCGCGGTGAAGCTGGAAGCCCGGACATGGA	720						
QY	727	CCCAAGGTGAAGCATGTGCGCCCTGTGACGAGAGAAATCAAGGCGCTGTGACCGCATCTTGC	786						
DB	721	CCCAAGGTGAAGCATGTGCGCCCTGTGACGAGAGAAATCAAGGCGCTGTGACCGCATCTTGC	780						
QY	787	GAGGAGATGAGAAAGAGGAGGACAGATCAACAAATCGGCGCCCGAGAACCCCTTCAACACCC	846						

Db	1547	AGGGCCCCAAGCGCATCAAGTCTTCAACTGGGCAAGAGGCGCAATCGCGCA	1606
OY	134	ACTGCGGCGCCCCCGCAAGAGGCTCTGGAAGTGGCGCAAGAGGCGCACAGATGA	193
Db	1607	ACTGCGGCGCCCCCGCAAGAGGCTCTGGAAGTGGCGCAAGAGGCGCACAGATGA	1666
OY	134	AGGACTGCAACGAGCGCCAGGCTTCTTCCGCGAGACCTGGCTTCCCCAGGCA	253
Db	1667	AGGACTGCAACGAGCGCCAGGCTTCTTCCGCGAGACCTGGCTTCCCCAGGCA	1726
OY	254	AGGCGCGGAGTTCCTCCAGCGAGAACCGCGGCAAGGCGCCAGCGCGAGCTGC	313
Db	1727	AGGCGCGGAGTTCCTCCAGCGAGAACCGCGGCAAGGCGCCAGCGCGAGCTGC	1786
OY	314	AGGTGCGGCGCAAAACCCCGCAGCGAGCGCGCGCGCCAGCGGCACTTGAAT	373
Db	1787	AGGTGCGGCGCAAAACCCCGCAGCGAGCGCGCGCGCCAGCGGCACTTGAAT	1846
OY	374	TCCCCCAGATCACCTGTGGACGCGCCCTGTGTAGCATCAAGTGGCGGCGAGATCA	433
Db	1847	TCCCCCAGATCACCTGTGGACGCGCCCTGTGTAGCATCAAGTGGCGGCGAGATCA	1906
OY	434	AGGAGCGCTCTGTGACACCGCGCGCGACACACCTGTCTGAGAGATGAGCTTGC	493
Db	1907	AGGAGCGCTCTGTGACACCGCGCGCGACACACCTGTCTGAGAGATGAGCTTGC	1966
OY	494	GCAATGGAGAGCCCAAGATGATCGGCGGCAATCGGCGCTTATCATCAAGTGGCGCGATG	553
Db	1967	GCAATGGAGAGCCCAAGATGATCGGCGGCAATCGGCGCTTATCATCAAGTGGCGCGATG	2026
OY	554	ACCAATCCTGATCGAGATCTTGGCGCAAGAGCGCATCGGACCTGTGATCGGCCCCA	613
Db	2027	ACCAATCCTGATCGAGATCTTGGCGCAAGAGCGCATCGGACCTGTGATCGGCCCCA	2086
OY	614	CCCCCGTGAATCATCTGGCGCGCAACATGCTGACCCAGCTGGCTGCAACCTGAACTTCC	673
Db	2087	CCCCCGTGAATCATCTGGCGCGCAACATGCTGACCCAGCTGGCTGCAACCTGAACTTCC	2146
OY	674	CCATCAGCGCCCATCGAGACCGTGGCCGTGAAGCTGAACCCGCGCATGGAACCGCGCCCAAG	733
Db	2147	CCATCAGCGCCCATCGAGACCGTGGCCGTGAAGCTGAACCCGCGCATGGAACCGCGCCCAAG	2206
OY	734	TGAAGCAGTGGCCCTGACCGAGGAGAGATCAAGGCCCTGACCGCATCTTGGCGAGGA	793
Db	2207	TGAAGCAGTGGCCCTGACCGAGGAGAGATCAAGGCCCTGACCGCATCTTGGCGAGGA	2266
OY	794	TGGAGAGAGGCGCAAGATCACCAAGATCGGCCCGGAGAACCTCTTACACACCCCGTGT	853
Db	2267	TGGAGAGAGGCGCAAGATCACCAAGATCGGCCCGGAGAACCTCTTACACACCCCGTGT	2326
OY	854	TGCGCATCAAGAGAGAGCAAGCAAGTGGCGCAACTGTGTGACTTCCGAGCTGA	913
Db	2327	TGCGCATCAAGAGAGAGCAAGCAAGTGGCGCAACTGTGTGACTTCCGAGCTGA	2386
OY	914	ACAAAGCAGCAACAGGACTTCTTGGAGGTGACAGCTGGCATCCCCACCCGCGCGCTGA	973
Db	2387	ACAAAGCAGCAACAGGACTTCTTGGAGGTGACAGCTGGCATCCCCACCCGCGCGCTGA	2446
OY	974	AGAAAGAGAGAGCGTGAACCTGTCTGACGTGGCGGACGCTTACTTCAAGGTGCCCTTGG	1033
Db	2447	AGAAAGAGAGAGCGTGAACCTGTCTGACGTGGCGGACGCTTACTTCAAGGTGCCCTTGG	2506
OY	1034	ACGAGAGACTTCCGCAAGTACACCGGCTTCAACATCCCAAGCATCAACAGAGACCCCG	1093
Db	2507	ACGAGAGACTTCCGCAAGTACACCGGCTTCAACATCCCAAGCATCAACAGAGACCCCG	2566
OY	1094	GCATCCGCTTACAGTACACGTCGCGCCAGGCGCTGGAAGGCGCGCCAGCATCTTCC	1153
Db	2567	GCATCCGCTTACAGTACACGTCGCGCGCCAGGCGCTGGAAGGCGCGCCAGCATCTTCC	2626
OY	1154	AGAGCAGCATGACCAAGATCTTGAAGCCCTTCCGCGCCCGCAACCCCGAGATCTGTGATCT	1213

Db	2627	AGAGCAGATGACCAAGATCCTGGAGGCCCTTCGGGCGCCCGCAACCCCGAAGTCGTGATCT	2668
QY	1214	ACCAAGTACATGAGCAGACTGTATCGTGGCAGCGACCTGGAGATGGCCAGCACCGCGCCA	1273
Db	2687	ACCA-----GGCCCCCTGTATCGTGGGCAAGCGACCTGGAGATGGCCAGCACCGCGCCA	2740
QY	1274	AGATCGAGAGACTGGCAAGACCTGCTGGGCTGAGGGGCTTCAACAACCCCGACAAAGAACG	1333
Db	2741	AGATCGAGAGACTGGCAAGACCTGCTGGGCTTCAACAACCCCGACAAAGAACG	2800
QY	1334	ACCAAGAGAGACCCCTCTCTGTGGATGAGGCTACGAGTGCACCCCGACAAAGTGAACG	1393
Db	2801	ACCAAGAGAGACCCCTCTCTGTGGATGAGGCTACGAGTGCACCCCGACAAAGTGAACG	2854
QY	1394	TGCAGCCCATCGACTGCTGCCGAGAGAGAGACTGACCTGTGAACGACATCCAGAACTGG	1453
Db	2855	TGCAGCCCATCGACTGCTGCCGAGAGAGAGACTGACCTGTGAACGACATCCAGAACTGG	2914
QY	1454	TGGGCAAGCTGAACTGGGCGCAGCCAGATCTACCCCGGATCAAGTGTGGCCAGCTGTGCA	1513
Db	2915	TGGGCAAGCTGAACTGGGCGCAGCCAGATCTACCCCGGATCAAGTGTGGCCAGCTGTGCA	2974
QY	1514	AGCTGCTGCGGGCGCCAGAGGCCCTGACCGACATCGTGCCCTGACCGAGAGAGGCCGAGC	1573
Db	2975	AGCTGCTGCGGGCGCCAGAGGCCCTGACCGACATCGTGCCCTGACCGAGAGAGGCCGAGC	3034
QY	1574	TGGAGCTGGCCGAGAACCGCCAGATCTCTGCGCAGGCCCGGTGCAGCGCGTGTACTACGAC	1633
Db	3035	TGGAGCTGGCCGAGAACCGCCAGATCTCTGCGCAGGCCCGGTGCAGCGCGTGTACTACGAC	3094
QY	1634	CCAGCAGAGACTTGTGTGGCCGAGATCCAGAAAGCAGGCGCACGACCATGTGACCTTACCGA	1693
Db	3095	CCAGCAGAGACTTGTGTGGCCGAGATCCAGAAAGCAGGCGCACGACCATGTGACCTTACCGA	3154
QY	1694	TCTACCGAGGAGCCCTTCAAGAACCTGAAAGACCGGCAAGTACGCCAAGATGGCGACCGGCC	1753
Db	3155	TCTACCGAGGAGCCCTTCAAGAACCTGAAAGACCGGCAAGTACGCCAAGTGGCGACCGGCC	3214
QY	1754	ACACCAACGAGGTGAGAGCAGCTGACCGAGGCCGTGTGCAAGAGATCGCCATGAGAGCATCG	1813
Db	3215	ACACCAACGAGGTGAGAGCAGCTGACCGAGGCCGTGTGCAAGAGATCGCCATGAGAGCATCG	3274
QY	1814	TGATCTGGGGCAAGACCCCCAAAGTTCGGCTGCCCCATCCAGAGAGACCTTGGAGACCT	1873
Db	3275	TGATCTGGGGCAAGACCCCCAAAGTTCGGCTGCCCCATCCAGAGAGACCTTGGAGACCT	3334
QY	1874	GGTGGAACGGAATTACTGCGAGAGGCCACCTGGATCCCCCGAGTGGGAGTTGTGAAACCCCCC	1933
Db	3335	GGTGGAACGGAATTACTGCGAGAGGCCACCTGGATCCCCCGAGTGGGAGTTGTGAAACCCCCC	3394
QY	1934	CCCTGATGAACCTGTGTGTACCAAGCTGAGAGAGGCCCATCATCGCGCCGAGACCTTCT	1993
Db	3395	CCCTGATGAACCTGTGTGTACCAAGCTGAGAGAGGCCCATCATCGCGCGGAGACCTTCT	3455
QY	1994	ACGTGGAACGAGCGCCGCGCAACCGCGAGACCAAGATTCGCGAGCGCGGCTTACGTGACCGAC	2053
Db	3455	ACGTGGAACGAGCGCGCGCAACCGCGAGACCAAGATTCGCGAGAGCGCGGCTTACGTGACCGAC	3514
QY	2054	GGGGCGGCAAGAGATCTGTAGCCTGACCCGAGACCAACCAAGAGACCGAGCTGTGAG	2113
Db	3515	GGGGCGGCAAGAGATCTGTAGCCTGACCCGAGACCAACCAAGAGACCGAGCTGTGAG	3574
QY	2114	CCATTCAGCTGAGCCCTGCGAGCACGCGGACAGCGGTGAACATCGTGACCGACAGCGCT	2173
Db	3575	CCATTCAGCTGAGCCCTGCGAGCACGCGGACAGCGGTGAACATCGTGACCGACAGCGCT	3634
QY	2174	AAGCCTTGGGATCATCCAGGCCCAAGCCCGACAAAGAGCGAGAGCGAGCTGTGTAACAGA	2233
Db	3635	AAGCCTTGGGATCATCCAGGCCCAAGCCCGACAAAGAGCGAGAGCGAGCTGTGTAACAGA	3694
QY	2234	TCATTCAGCAGCTGATCAAGAGAGAGAGGTGTACTTGAAGCTTGGGTGCGCGCCCAAGG	2293
Db	3695	TCATTCAGCAGCTGATCAAGAGAGAGAGGTGTACTTGAAGCTTGGGTGCGCGCCCAAGG	3754

[illegible]

```

RESULT 11
US-10-190-435-10
; Sequence 10, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Estrellita J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: PPI8133.003 / 2302-18133
; CURRENT APPLICATION NUMBER: US/10/190,435
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 10
; LENGTH: 3930
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: GagComp1Polmutatc_C
US-10-190-435-10

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Query Match	96.9%	Score 2393.2	DB 6	Length 3930
Best Local Similarity	99.2%	Pred. No. 0		
Matches 2430; Conservative	0	Mismatches 8	Indels 12	Gaps 2

QY	14	TCGCGCGAGGCGCATGAGCCAGGCGCACAGGCGCAATCCGTATGACAGGCGACAACTTCA	73
Db	1487	TCGCGAGGCGCATGAGCCAGGCGCACAGGCGCAATCCGTATGACAGGCGACAACTTCA	154
QY	74	AGGGCCCCAAGGCGCATCATCATGTGCTTCAACTGCGCGCAAGAGGGCGCATTCGCGCGCA	133
Db	1547	AGGGCCCCAAGGCGCATCATCATGTGCTTCAACTGCGCGCAAGAGGGCGCATTCGCGCGCA	160
QY	134	ACTGCGCGCGCCCCCGCGCAAGAGGCGTGTGGAAGTGCAGCGCAAGAGGGCGCACAGATGA	193
Db	1607	ACTGCGCGCGCCCCCGCGCAAGAGGCGTGTGGAAGTGCAGCGCAAGAGGGCGCACAGATGA	166
QY	194	AGGACTGCAACCGAGCGCCAGGCCCACTTCTTCGCGAGGACCTGTGCTTTCGCCAGGCGCA	253
Db	1667	AGGACTGCAACCGAGCGCGCCAGGCCCACTTCTTCGCGAGGACCTGTGCTTTCGCCAGGCGCA	172
QY	254	AGGCGCGCGAGTTCCCGCAGCGAGCAGAACCGCGCCCAACAGCCCGACACAGCGCGAGCTGC	313
Db	1727	AGGCGCGCGAGTTCCCGCAGCGAGCAGAACCGCGCCCAACAGCCCGACACAGCGCGAGCTGC	178
QY	314	AGGTGCGCGCGCACAAACCCCGAGGAGGCGGCGCGCGCAGAGGCGCAGGGCACCTGAACT	373
Db	1787	AGGTGCGCGCGCACAAACCCCGAGGAGGCGGCGCGCGCGCAGAGGCGCAGGGCACCTGAACT	184
QY	374	TCCCCCAGATCACTCTGTGGCAGCGCCCGCTGTGAGCATCAAGGTGTGGCGCGCAGATCA	433
Db	1847	TCCCCCAGATCACTCTGTGGCAGCGCCCGCTGTGAGCATCAAGGTGTGGCGCGCAGATCA	190
QY	434	AGGAGGCGCTGTGGAACAACGGCGCGCAGACACGCTGCTGAGGAGATGAGCTTCCCG	493

Db	1907	AGAGAGCCCTGCTGGAAGCTCGGAGCGCAGACAGACCTGGCTGGAGAGATGAGCTGCGCG	1966
Qy	494	GCAAGTGAAGAGCCCAAGATGATGTCGGCGGCATTCGGCGCTTCACTAAGTGGCCAGATACG	553
Db	1967	GCAAGTGAAGAGCCCAAGATGATGTCGGCGGCATTCGGCGCTTCACTAAGTGGCCAGATACG	2026
Qy	554	ACCAATTCCTGATGAGATGCTGCGCGCAAGAGGCATTCGGCAGCGTGCTGATCGGACCCA	613
Db	2027	ACCAATTCCTGATGAGATGCTGCGCGCAAGAGGCATTCGGCAGCGTGCTGATCGGACCCA	2086
Qy	614	CCCCCGTGAACATCATCGGCGCAACATGCTGAACCCAGCTGGGCGTGCACCTGTACCTTCC	673
Db	2087	CCCCCGTGAACATCATCGGCGCAACATGCTGAACCCAGCTGGGCGTGCACCTGTACCTTCC	2146
Qy	674	CCATCAGCCCCATGAGACCGTGCCCGGTGAAGCTGAAGCCCGGCAATGACCGCCCAAG	733
Db	2147	CCATCAGCCCCATGAGACCGTGCCCGGTGAAGCTGAAGCCCGGCAATGACCGCCCAAG	2206
Qy	734	TGAAGCATGGCCCCCTGACCCAGAGAAAGATCAAGGCCCTGACCGGCATCTGCGAGAGGA	793
Db	2207	TGAAGCATGGCCCCCTGACCCAGAGAAAGATCAAGGCCCTGACCGGCATCTGCGAGAGGA	2266
Qy	794	TGGAGAAAGAGGAGCAAGATCAACAAAGATCGGCGCCCGAGAACCCCTGACAAACACCCCGTGT	853
Db	2267	TGGAGAAAGAGGAGCAAGATCAACAAAGATCGGCGCCCGAGAACCCCTGACAAACACCCCGTGT	2322
Qy	854	TGCGCATCAAGAAAGAGAGCAGACCAAGTGGCGCAAGCTGAGTGAATTCCGCGAGCTGA	913
Db	2327	TGCGCATCAAGAAAGAGAGCAGACCAAGTGGCGCAAGCTGAGTGAATTCCGCGAGCTGA	2386
Qy	914	ACAAGCGCAACCAAGCATTTCTGGGAGGTGCAAGCTGGGATATCCCAACCCCGCGCGGCTGA	973
Db	2387	ACAAGCGCAACCAAGCATTTCTGGGAGGTGCAAGCTGGGATATCCCAACCCCGCGCGGCTGA	2444
Qy	974	AGAAAGAAAGAGCGGTGACCGGTGCGAGCGTGGCGAGCGCTTCACTTCAAGCGTGCCTTGG	1033
Db	2447	AGAAAGAAAGAGCGGTGACCGGTGCGAGCGTGGCGAGCGCTTCACTTCAAGCGTGCCTTGG	2500
Qy	1034	ACGAGAGCTTCCGCAAGTACACCGGCTTCAACCATCCAGCATCAACAGAGACCCCG	1092
Db	2507	ACGAGAGCTTCCGCAAGTACACCGGCTTCAACCATCCAGCATCAACAGAGACCCCG	2566
Qy	1094	GCATCCGCTACCAATCAACAGTGTGCCCCCAGGGGTGGAAAGGCGAGCCCGCAGATCTTCC	1155
Db	2567	GCATCCGCTACCAATCAACAGTGTGCCCCCAGGGGTGGAAAGGCGAGCCCGCAGATCTTCC	2622
Qy	1154	AGAGAGAGCATGACCAAGATCCGTGGAGGCCCTTCGGCGCCGACACCCCGAGATCGTATCT	1211
Db	2627	AGAGAGAGCATGACCAAGATCCGTGGAGGCCCTTTCGGCGCCGACACCCCGAGATCGTATCT	2688
Qy	1214	ACCAGTACATGAGCAGACCTGTATCGTGGCAGCGACCTGGAGATTCGGCAGCAGCAGCGCCA	1272
Db	2687	ACCAGTACATGAGCAGACCTGTATCGTGGCAGCGACCTGGAGATTCGGCAGCAGCAGCGCCA	2744
Qy	1274	AGATGAGAGAGCTGGCGCAAGACCTGTGCGCTGGGGGCTTCAACACCCCGCAGAGAAAG	1333
Db	2741	AGATGAGAGAGCTGGCGCAAGACCTGTGCGCTGGGGGCTTCAACACCCCGCAGAGAAAG	2800
Qy	1334	ACCAAGAAAGAGCCCCCTTCCCTGTGAGATGAGGCTTAAAGGTGACCCCGACCAAGTGGACCG	1392
Db	2801	ACCAAGAAAGAGCCCCCTTCCCTGTGAGATGAGGCTTAAAGGTGACCCCGACCAAGTGGACCG	2855
Qy	1394	TGCAGGCCATCGAGCTGCGCCGAGAGAGAGCTGACCGTGAACGACATCCAGAACTGG	1455
Db	2855	TGCAGGCCATCGAGCTGCGCCGAGAGAGAGCTGACCGTGAACGACATCCAGAAAGCTGG	2911
Qy	1454	TGGGCAAGCTGAATCTGGGCGACCGCAGATCTTACCCCGGCAATCAAGGTGGCCGACGTGTGA	1511
Db	2915	TGGGCAAGCTGAATCTGGGCGACCGCAGATCTTACCCCGGCAATCAAGGTGGCCGACGTGTGA	2972
Qy	1514	AGCTGTGGCGCGCCGCAAGGCGCTGACCGACATGCTGGCCCTGACCGAGAGGCGGACG	1572
Db	2975	AGCTGTGGCGCGCCGCAAGGCGCTGACCGACATGCTGGCCCTGACCGAGAGGCGGACG	3033

QY 1574 TGGAGCTGGCCGAGAACCGAGATCTCTGCGCGAGCCCGTGCACGGCGTGTACTACGACC 1633
 DB 3035 TGGAGCTGGCCGAGAACCGAGATCTCTGCGCGAGCCCGTGCACGGCGTGTACTACGACC 3094
 QY 1634 CCAAGCAAGACCTGTGGCCGAGATCCAGAAAGAGGGCCAGACCACTGAGACTACCA 1693
 DB 3095 CCAAGCAAGACCTGTGGCCGAGATCCAGAAAGAGGGCCAGACCACTGAGACTACCA 3154
 QY 1694 TCTACCAAGAGCCCTTCAAGAACTTGAAGACCGGCAAGTACCAAGATGGGCAACCCGCC 1753
 DB 3155 TCTACCAAGAGCCCTTCAAGAACTTGAAGACCGGCAAGTACCAAGATGGGCAACCCGCC 3214
 QY 1754 ACACCAACGACGTGAAGAGCTGACCGAGCGCGTGCAGAAAGATGCCATGAGAGCATCG 1813
 DB 3215 ACACCAACGACGTGAAGAGCTGACCGAGCGCGTGCAGAAAGATGCCATGAGAGCATCG 3274
 QY 1814 TGATCTGGGGCAAGACCCCAAGTTCCGCTGCTCCATTCAGAGAGAGACTTGGAGACT 1873
 DB 3275 TGATCTGGGGCAAGACCCCAAGTTCCGCTGCTCCATTCAGAGAGAGACTTGGAGACT 3334
 QY 1874 GGTGGACCGACTACTCTGGAGAGCCACTGGATCCCGAGTGGAGATTCGTGAACAACCCGCC 1933
 DB 3335 GGTGGACCGACTACTCTGGAGAGCCACTGGATCCCGAGTGGAGATTCGTGAACAACCCGCC 3394
 QY 1934 CCCTGTGAAGCTGTGTGACCACTGAGAGAGAGCCATCATCGCGCCGAGACCTTCT 1993
 DB 3395 CCCTGTGAAGCTGTGTGACCACTGAGAGAGAGCCATCATCGCGCCGAGACCTTCT 3454
 QY 1994 ACGTGAACGAGCGCGCCCAACCGGAGACCAAGATCGGCAAGCGCGCTTACGTGACCGAGC 2053
 DB 3455 ACGTGAACGAGCGCGCCCAACCGGAGACCAAGATCGGCAAGCGCGCTTACGTGACCGAGC 3514
 QY 2054 GGGGCGCGCAGAAAGATCGTGAAGCTTGAACCAACCAAGAAAGCCGAGCTGACAG 2113
 DB 3515 GGGGCGCGCAGAAAGATCGTGAAGCTTGAACCAACCAAGAAAGCCGAGCTGACAG 3574
 QY 2114 CCATCCAGCTGAGCCCTGAGAGACAGCGGAGAGGTGAACATCGTGAACCGACAGCAGT 2173
 DB 3575 CCATCCAGCTGAGCCCTGAGAGACAGCGGAGAGGTGAACATCGTGAACCGACAGCAGT 3634
 QY 2174 ACGCCCTGGGAGCATCTCCAGGCGCCAGCCGACCAAGAGCGAGAGCGAGCTGTGAACGAG 2233
 DB 3635 ACGCCCTGGGAGCATCTCCAGGCGCCAGCCGACCAAGAGCGAGAGCGAGCTGTGAACGAG 3694
 QY 2234 TCATCGAGCACTGATCAAGAGAGAGAGTGTACTTGAAGCTGTGCGCCGCCCAAGAG 2293
 DB 3695 TCATCGAGCACTGATCAAGAGAGAGAGTGTACTTGAAGCTGTGCGCCGCCCAAGAG 3754
 QY 2294 GCATCGGCGGCAACGAGAGATCGACCAAGCTGTGAGCAAGGAGCATCCGCAAGGTGTGT 2353
 DB 3755 GCATCGGCGGCAACGAGAGATCGACCAAGCTGTGAGCAAGGAGCATCCGCAAGGTGTGT 3814
 QY 2354 TCCTGAGAGGAGATGATGAGCGGAGCTGTGATCTACCAATGATGAGAGCACTGTGAG 2413
 DB 3815 TCCTGAGAGGAGATGATGAGCGGAGCTGTGATCTACCAATGATGAGAGCACTGTGAG 3874
 QY 2414 GCAAGGAGGAGGAGCTTGAAGCTTCCCGGAGGCTAGCAACCGGT 2463
 DB 3875 GCAAGGAGGAGGAGCTTGAAGCTTCCCGGAGGCTAGCAACCGGT 3924

RESULT 12
 US-10-190-435-11
 ; Sequence 11, Application US/10190435
 ; Publication No. US20030143248A1
 ; GENERAL INFORMATION:
 ; APPLICANT: ZUR MEGEDB, Jan
 ; APPLICANT: BARRETT, Susan W.
 ; APPLICANT: LIAN, Ying
 ; APPLICANT: ENGELBRECHT, Susan
 ; APPLICANT: VAN RENSBURG, Seirelita J.
 ; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C

; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
 ; FILE REFERENCE: P18133.003 / 2302-18133
 ; CURRENT APPLICATION NUMBER: US/10/190.435
 ; NUMBER OF SEQ ID NOS: 319
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 11
 ; LENGTH: 3930
 ; TYPE: DNA
 ; ORGANISM: Artificial Sequence
 ; FEATURES:
 ; OTHER INFORMATION: Description of Artificial Sequence: GagCompPolmultina_C
 US-10-190-435-11

Query Match 96.9%; Score 2393.2; DB 6; Length 3930;
 Best Local Similarity 99.2%; Pred. No. 0;
 Matches 2430; Conservative 0; Mismatches 8; Indels 12; Gaps 2;

QY 14 TGGCCGAGGCCATGAGCCAGGCGCACAGCGCAATCTGTATGACAGCGCAACTTCA 73
 DB 1487 TGGCCGAGGCCATGAGCCAGGCGCACAGCGCAATCTGTATGACAGCGCAACTTCA 1546
 QY 74 AGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGCGCAAGAGGCGCAATCGCCGCA 133
 DB 1547 AGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGCGCAAGAGGCGCAATCGCCGCA 1606
 QY 134 ACTGCGCGCGCCCGCGCAAGAGGCTGTGAAGTGCAGAGAGGCGCAACCAAGATGA 193
 DB 1607 ACTGCGCGCGCCCGCGCAAGAGGCTGTGAAGTGCAGAGAGGCGCAACCAAGATGA 1666
 QY 194 AGGACTGACCGAGCGCGCAAGGCAACTTCTTCCGCGAGAGACTTGGCTTCCCGCAAGGCA 253
 DB 1667 AGGACTGACCGAGCGCGCAAGGCAACTTCTTCCGCGAGAGACTTGGCTTCCCGCAAGGCA 1726
 QY 254 AGGCGCGGAGTTCCTCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 313
 DB 1727 AGGCGCGGAGTTCCTCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1786
 QY 314 AGGTGCGGCGGCAACCGCCGCGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 373
 DB 1787 AGGTGCGGCGGCAACCGCCGCGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1846
 QY 374 TCCCCAGATCAACCTGTGAGAGCGCCCTGTGATGATCAAGTGGCGGCGCAAGATCA 433
 DB 1847 TCCCCAGATCAACCTGTGAGAGCGCCCTGTGATGATCAAGTGGCGGCGCAAGATCA 1906
 QY 434 AGGAGGCGCTGTGAGACACCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 493
 DB 1907 AGGAGGCGCTGTGAGACACCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1966
 QY 494 GCAAGTGAAGCCCAAGATGATCGGCGGCGCATCGCGCTTCAAGAGTGGCGCGAGTACG 553
 DB 1967 GCAAGTGAAGCCCAAGATGATCGGCGGCGCATCGCGGCTTCAAGAGTGGCGCGAGTACG 2026
 QY 554 ACCAGATCTGTATGAGATCTGCGGCAAGAGGCGCATCGGAGCGGTGTGATCGGCCCA 613
 DB 2027 ACCAGATCTGTATGAGATCTGCGGCAAGAGGCGCATCGGAGCGGTGTGATCGGCCCA 2086
 QY 614 CCCCCGTGAACATATGAGGCGGCAACATGCTGACCCGAGCTGCAACCTTGAACCTTCC 673
 DB 2087 CCCCCGTGAACATATGAGGCGGCAACATGCTGACCCGAGCTGCAACCTTGAACCTTCC 2146
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RESULT 15
US-10-190-435-13

Sequence 13, Application US/10190435
Publication No. US20030143248A1

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APPLICANT: VAN RENSBURG, Estrellita J.

TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C

TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF

FILE REFERENCE: PPI813.003 / 2302-18133

CURRENT APPLICATION NUMBER: US/10/190,435

CURRENT FILING DATE: 2002-12-30
NUMBER OF SEQ ID NOS: 319
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 13
LENGTH: 3531
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: GagPolInt_C
US-10-190-435-13

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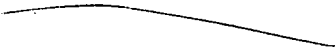
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November 2005

Published_Applications Nucleic Acid and Published_Applications Amino Acid database searches now generate two sets of results each. The Published_Applications databases have been split into two parts to reduce the amount of time required for their daily updates. This results in more machine time being available for processing searches.

Newly published applications will appear in the Published_Applications_New databases; older published applications make up the Published_Applications_Main databases.

Searches run against Nucleic Acid Published_Applications produce two sets of results, with the extensions **.rnpbm** (Published_Applications_NA_Main) and **.rnpbn** (Published_Applications_NA_New).
Searches run against Amino Acid Published_Applications produce two sets of results, with the extensions **.rapbm** (Published_Applications_AA_Main) and **.rapbn** (Published_Applications_AA_New).



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OM nucleic - nucleic search, using sw model

Run on: December 30, 2005, 08:57:15 ; Search time 296.387 Seconds
(without alignments)
4366.995 Million cell updates/sec

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Gapop 10.0 , Gapext 1.0

Searched: 4172979 seqs, 262114271 residues

Total number of hits satisfying chosen parameters: 8345958

8345958

Minimum	DB seq	length:	0
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Maximum DB seq length: 20000000000

Post-processing:	Minimum Match	0%
	Maximum Match	100%

Maximum Match 100%
Listing first 45 summaries

Database : Published Applications NA New: *

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10: /cgn2_6/ptodata/1/pubpna/us60_NEW_PUB_seq.*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

| Result No. | Score  | Query Match | Length | DB | ID                | Description         |
|------------|--------|-------------|--------|----|-------------------|---------------------|
| 1          | 1342.8 | 54.4        | 1689   | 6  | US-10-507-928-9   | Sequence 9, Appl1   |
| 2          | 1342.8 | 54.4        | 1689   | 6  | US-10-507-928-11  | Sequence 11, Appl1  |
| 3          | 1342.8 | 54.4        | 1689   | 7  | US-11-029-465-9   | Sequence 9, Appl1   |
| 4          | 1342.8 | 54.4        | 1689   | 7  | US-11-029-465-11  | Sequence 11, Appl1  |
| 5          | 1132   | 45.8        | 9719   | 9  | US-11-042-988-10  | Sequence 10, Appl1  |
| 6          | 156.2  | 6.3         | 17207  | 6  | US-10-519-531-8   | Sequence 8, Appl1   |
| 7          | 154.6  | 6.3         | 1503   | 6  | US-10-519-531-2   | Sequence 2, Appl1   |
| 8          | 141.4  | 5.7         | 1503   | 6  | US-10-507-928-3   | Sequence 3, Appl1   |
| 9          | 141.4  | 5.7         | 1503   | 7  | US-11-029-465-3   | Sequence 3, Appl1   |
| 10         | 104.4  | 4.2         | 3513   | 6  | US-10-858-730-142 | Sequence 142, Appl1 |
| 11         | 100.2  | 4.1         | 2736   | 6  | US-10-858-730-38  | Sequence 38, Appl1  |
| 12         | 94.8   | 3.8         | 1434   | 7  | US-11-075-185-57  | Sequence 57, Appl1  |
| 13         | 94.8   | 3.8         | 14172  | 7  | US-11-075-185-2   | Sequence 2, Appl1   |
| 14         | 88.6   | 3.6         | 1386   | 7  | US-11-075-185-55  | Sequence 55, Appl1  |
| 15         | 86.2   | 3.5         | 37507  | 6  | US-10-522-037-2   | Sequence 2, Appl1   |
| 16         | 86.2   | 3.2         | 2010   | 7  | US-11-108-377-5   | Sequence 5, Appl1   |
| 17         | 80.2   | 3.2         | 2010   | 7  | US-11-108-389-5   | Sequence 5, Appl1   |
| 18         | 72.8   | 2.9         | 1115   | 7  | US-11-143-986-7   | Sequence 7, Appl1   |
| 19         | 72.6   | 2.9         | 3711   | 6  | US-10-873-528-321 | Sequence 321, Appl1 |
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| 21         | 71.4   | 2.9         | 8730   | 7  | US-11-087-084-1   | Sequence 1, Appl1   |
| 22         | 69.4   | 2.9         | 1593   | 6  | US-11-087-085-1   | Sequence 1, Appl1   |
| 23         | 69.4   | 2.8         | 1593   | 6  | US-10-858-730-138 | Sequence 138, Appl1 |

|    |      |     |        |   |                     |                    |
|----|------|-----|--------|---|---------------------|--------------------|
| 24 | 67.4 | 2.7 | 1590   | 6 | US-11-0-858-730-162 | Sequence 162, Appl |
| 25 | 66.6 | 2.7 | 864    | 7 | US-11-1-179-441-26  | Sequence 26, Appl  |
| 26 | 66.6 | 2.7 | 864    | 7 | US-11-1-175-766-26  | Sequence 26, Appl  |
| 27 | 66.6 | 2.7 | 1690   | 6 | US-10-667-225-204   | Sequence 204, Appl |
| 28 | 65.8 | 2.7 | 1161   | 6 | US-10-858-730-170   | Sequence 170, Appl |
| 29 | 64.4 | 2.6 | 3408   | 6 | US-11-0-858-730-40  | Sequence 40, Appl  |
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| 31 | 64   | 2.6 | 78689  | 7 | US-11-0-75-185-1    | Sequence 1, Appl   |
| 32 | 63.8 | 2.6 | 765    | 7 | US-11-0-75-185-50   | Sequence 50, Appl  |
| 33 | 63.8 | 2.6 | 14172  | 7 | US-11-0-75-185-2    | Sequence 2, Appl   |
| 34 | 62.8 | 2.5 | 3477   | 6 | US-10-858-730-141   | Sequence 141, Appl |
| 35 | 61.8 | 2.5 | 5206   | 7 | US-11-0-00-463-219  | Sequence 219, Appl |
| 36 | 61.8 | 2.5 | 116856 | 7 | US-11-1-143-980-1   | Sequence 1, Appl   |
| 37 | 61.4 | 2.5 | 1119   | 7 | US-11-1-143-980-11  | Sequence 11, Appl  |
| 38 | 61.2 | 2.5 | 8651   | 6 | US-10-433-483-48    | Sequence 48, Appl  |
| 39 | 60.2 | 2.4 | 1344   | 7 | US-11-1-112-882-12  | Sequence 12, Appl  |
| 40 | 60.2 | 2.4 | 1687   | 7 | US-11-1-112-882-13  | Sequence 13, Appl  |
| 41 | 59.8 | 2.4 | 6360   | 7 | US-11-1-056-470-2   | Sequence 2, Appl   |
| 42 | 59.6 | 2.4 | 3832   | 6 | US-10-821-234-99    | Sequence 99, Appl  |
| 43 | 59.4 | 2.4 | 2376   | 7 | US-11-0-56-621-3    | Sequence 3, Appl   |
| 44 | 58.8 | 2.4 | 2133   | 7 | US-11-1-143-980-13  | Sequence 13, Appl  |
| 45 | 58.8 | 2.4 | 11070  | 7 | US-11-0-75-185-34   | Sequence 34, Appl  |

## ALIGNMENTS

RESULT 1  
US-10-507-928-9

Publication No. US20050266024A1

APPLICANT: POWDERMED LIMITED AND GLAXO GROUP LIMITED

**TITLE OF INVENTION: ADJUVANT**

FILE REFERENCE: N.88232B GCW

CURRENT APPLICATION NUMBER: US/10/507,928

CURRENT FILING DATE: 2004-09-

SOFTWARE: PatentIn version 3.1

SEQ ID NO 9

LENGTH: 1689

TYPE: DNA

**ORGANISM:** Artificial sequence

FEATURE:

OTHER INFORMATION: nucleotide sequence of RT insert of p1011-R1-

US-10-507-928-9

| Query Match   | Best Local Similarity | 54.4%;                                                               | Score 1342.8;   | DB 6;  | Length 1689; |
|---------------|-----------------------|----------------------------------------------------------------------|-----------------|--------|--------------|
| 87.4%;        | Pred. No. 2.9e-206;   |                                                                      |                 |        |              |
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| QY            | 6712                  | CCCCATCAGCCCCATCCGAGACCGTGGCCCCCGTGAAGCTGMAAGCCCGGCGCATCGAGCGGCCCAAA | 731             |        |              |
| Db            | 6                     | CCCCATCAGTCCCATCGAGACCGTGGCGGTGAAGCTGMAAACCCGCGAGTGGACGGCCCCAA       | 65              |        |              |
| QY            | 732                   | GGTGAAGCAGTGGGCCCGCCCTGACCGAGGAGAAATCAAGGCGCCTGACCGGCATCTGTGGAGAGA   | 791             |        |              |
| Db            | 66                    | GGTCAAGCAGTGGCCCATCTCACCCGAGAGAAATCAAGGCCCTGTGTGAGAGATCTGACCGGA      | 125             |        |              |
| QY            | 792                   | GATGAGAGAGAGGGCAAGATCACCAAGATCGGCCCCCGAGAACCCCTTCAACAACCCCCGT        | 851             |        |              |
| Db            | 126                   | GATGAGAGAAAGGGCAAGATCACCAAGATCGGGCTGTGAAACCCATCAACACCCCGGT           | 185             |        |              |
| QY            | 852                   | GTTGCCCATCAAAAGAGAGACAGCAACAGTGGCGCAAGCTGGTGGACTTCCGCGAGCT           | 911             |        |              |
| Db            | 186                   | GTTGGCCATCAAGAGAGAGACAGCAACAGTGGCGCAAGCTGGTGGACTTCCGCGAGCT           | 245             |        |              |
| QY            | 912                   | GAACAGAGCAGCCCGAGACTTCTGGAGAGTGCAGCTGGGCAATCCCCCAACCCCGCGCGCT        | 971             |        |              |
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| Db | 426  | TGGCATCAAGTATTCAGTACAAAGCTCTCCCCCAAGGGGTGAAAGGGCTCTCCCGCATTTT    | 485  |
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| Db | 486  | CCAGAGCTTCATGACCAAGATCTTGAAGCGGTTTCCGAAGCAGAACCCCGATTCGTAT       | 545  |
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| Db | 606  | GAAATTTGAGAGGTGAGGAGCAATCTGTGAATGGGGCTGACCACTCCGACAAAGAA         | 665  |
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| Db | 666  | GCATCAGAAAGAGCGGCATTCCTGTGATGGGCTACAGACTCATCCCAAAATGGAGAC        | 725  |
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| Db | 786  | GGTGGGCAAGCTTCAACTGGGCTAGCCAGATCTATCCCGGATCAAGGTGGCCAGCTGTG      | 845  |
| Qy | 1512 | CNAGCTGTGCGCGCGCCAGAGGCCCTTGACCGACATGTCCTCTGACCGAAGAGCCGA        | 1571 |
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| Qy | 1572 | GCTGAGCTGGCCAGAAACGCGAGATCTGCGCGAGCCGTGTGACGGCGTTATCTACGA        | 1631 |
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| Db | 966  | CCCCCTCAAGGACCTGATGCCGAATTCAGAACAGGGGCCAGGGGAGTGGACTTACCA        | 1025 |
| Qy | 1692 | GATCTACCAAGAGCCCTTCAAGAAACCTGAAGACCGGCAAGTACGCAAGTGGCACCGC       | 1751 |
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| Db | 1086 | CCACACCAACATGTCAAGCGACTGACCGAGGCCGTCAAGAAATTCAGACCGAGTCAT        | 1145 |
| Qy | 1812 | CGTATCTGGGGGCAAGACCCCAAGTTCCGCTGCGCATCCAGAAAGAGACTTGGGAGAC       | 1871 |
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| Qy | 1932 | CCCCCTGTGAACTGTGGTACAGACTGGAAGAGGCCATCATCCGCGCCGAGACCTT          | 1991 |
| Db | 1266 | TCCCTGTGTTGAAGCTGTGTACAGACTGGAAGAGGCCATCTGTGGCGCGGAGACATT        | 1325 |
| Qy | 1992 | CTAACCTGGAACCGCGCGCCCAACCGGGAACCAAGATCGGCAAGGCGCGCTTACGTAACGA    | 2051 |
| Db | 1326 | CTAACCTGGAACCGCGCGCCCAACCGGGAACCAAGCTTCGGAAAGGCGCGGTTACCTACCAAA  | 1385 |
| Qy | 2052 | CCGGGGCGGAGAGATCTGTAGCGCTGACCGAGACCAACCAACGAAGACCGAGCTGCA        | 2111 |
| Db | 1386 | CCGGGGCGGCGAGAGTGTCTACCTTACCGACCAACCAACGAAGAGCGAGCTGCA           | 1445 |
| Qy | 2112 | GGCCATCCAGCTGGCCCTTGCAAGACAGCGGCAAGCGAGGTGAACATCTGTACCGACAGCCA   | 2171 |
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OY 2292 GGGCATCGGGGGGCAACGACGAGATCCGACAGCTGTTGAGCAAGGGGCATCCGCAAGTGTCT 2351
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OY 2352 GT 2353
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Db 1686 GT 1687

RESULT 5
US-11-042-988-10
; Sequence 10, Application US/11042988
; Publication No. US20050244818A1
; GENERAL INFORMATION:
; APPLICANT: SILICIANO, ROBERT
; APPLICANT: ZHANG, HAILI
; APPLICANT: ZHOU, YAN
; TITLE OF INVENTION: SINGLE CELL ANALYSIS OF HIV REPLICATION CAPACITY AND
; TITLE OF INVENTION: DRUG RESISTANCE
; FILE REFERENCE: 62760(71699)
; CURRENT APPLICATION NUMBER: US/11/042,988
; CURRENT FILING DATE: 2005-01-25
; PRIOR APPLICATION NUMBER: 60/540,716
; PRIOR FILING DATE: 2004-01-30
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn Ver. 3.3
; SEQ ID NO 10
; LENGTH: 9719
; TYPE: DNA
; ORGANISM: Human immunodeficiency virus type 1
US-11-042-988-10

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| Query Match | 45.8% | Score 1132 | DB 9 | Length 9719 |
|-------------|-------|------------|------|-------------|
|-------------|-------|------------|------|-------------|

Best Local Similarity 68.5%; Pred. No. 1.1e-1/2;  
Mismatches 730; Indels 16; Gaps 4;

MALCIBUS 1020 / COMBET VACVAC

14 TGGCCGAGGCATGAGCCAGGCCACCA---GCGCCACATCTGTATGCAGCGCAGCAACT 70

10277 TTTCTTCTGCTGGATTCAGCCTAATATTACACTGCTGAGGCAAT 1936

[illegible]

71 TCAAGGGCCCCAAGCGCATCATCAAGTGTCTCAACTGCGGCAAGGAGGGCCACATCGCCC 130

1827 TTTTCCCAAGATTGTTTCAATTGTCGAAGAGGCACACAGCCA 1996

1000

131 GCAACTGCCGCGCCCGCAAGAGGGCTGCTGGAAGTGC GGCAAGAGGGCCACCAGA 190

1007 CAGGCTGAAATGTCGAAAGGACACCAA 2056

[illegible]

191 TGAAGACTGCACCGAGCGGCCAATTCTCCGGAGGACCTGGCCTTCCCCAGG 250

2057 TGAAGATTGTACTGAGACAGGCTAA-TTTTCTAGGGAAGATCTGGCCTTCCTACAAG 2115

1. **Introduction**  
 2. **Background**  
 3. **Methodology**  
 4. **Results**  
 5. **Discussion**  
 6. **Conclusion**  
 7. **References**  
 8. **Appendix**  
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 10. **Figure 2**  
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 13. **Figure 5**  
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 217. **Figure 209**

251 GCAAGGCCCGGAGTTCCCCAGCGAGCAGAACCGCGCCCAACAGCCCCACCAAGCCCGGAGC 310

3116 GGAAAGGCTCAGGAAATTTTCTTCAGAGCAGACCAGAGCCACACAGCCCCACACCGAGAAGAGGC 2175

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311 TGCAGGTGCGG-----CGACAACCCCGCAGCGAGCGCGCGCGAAGCGCAGGCA 364

2176 TTTCAGGTC TGGGGTAGAGACAACACTCCCCCTCAGAGCAGGAGCCGATAGACCAAGGAA 2235

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365 -----CCCTGACTTCCCCAGATCACCTGTGGACGCCCCCGTGGATCATCAAG 410

2236 CTGTATCCTTAACTTCCCTCAGGTCACTCTTTGGCAACGACCCCTCGTCACATAAAGA 2295

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419 TGGCGCCAGATCAAGGAGCCTGTGGAACCCGCGCGAACAACCCTGC

2296 TAGGGGCACTAAAGGAGCTCTATTAGATACAGGAGCAGATGATACAGTATTAGAAG 2355

479 AGATGAGCTTCGCCGAGTGGAGAGCCCAAGATGATCGCGCATCGCGCTTCATCA 538  
2356 AAATGAGTTTCCAGGAGATGGAAACCAAAATGATAGGGGAAATTGGAGTTTATCA 2415  
539 AGGTGCGCAGTACGACCAATCTCTGATCGATCTGCGCAAGAGGCCATCGGCACG 598  
2416 AAGTAAAGCAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2475  
599 TGCTGATGCGGCCCAACCCCGTGAACATCATCGCGCAACATGCTGACCCAGCTGGCT 658  
2476 TATTAGTAGAGCTTACCTGTCATCAATTTGGAGAAATCTGTGATCAGATTTGTT 2535  
659 GCACCTGTAATCTCCCATCAGCCCATCGACCGTCCCGTGAAGCTGAAGCCCGCA 718  
2536 GCATTTAAATTTTCCATTAAGCCCTATTGAGCTGTACAGTAAATTAAGCCAGAA 2595  
719 TGGAGCGCCCAAGTGAAGAGTGGCCCTGACCGAGAGAGATCAAGCCCTGACCG 778  
2596 TGGATGGCCCAAAAGTTAAACATGGCCATTGACAGAAAGAAATTAAGCATTTAGT 2655  
779 CCATCTGAGAGAGTGGAGAGAGGAGGAGATGACCAAGATCGGCCCGAGAACCCCT 838  
2656 AAATTTGACAGAGATGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2715  
839 ACAACACCCCGCTGTTCCCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 898  
2716 ACAATACCTCAAGTATTTCCATTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2775  
899 ACTTCCGAGCTGAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 958  
2776 ATTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2835  
959 ACCCGCGCGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1018  
2836 ATCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2895  
1019 TCAGAGTGCCTCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1078  
2896 TTTCAAGTTCCCTTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2955  
1079 ACAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1138  
2956 ACAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3015  
1139 GCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1198  
3016 CACGAGCAATTTCCAAAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3075  
1199 CCGAGATCGTATCTACAGATGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1258  
3076 CAGACATAGTTATCTATCAATACATGATGATGATGATGATGATGATGATGATGAT 3135  
1259 GCCAGACCGCGGCAAGATCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1318  
3136 GCGAGCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3195  
1319 CCCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1378  
3196 CACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3255  
1379 CCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1438  
3256 CTGATTAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3315  
1439 ACATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1498  
3316 ACATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3375  
1499 TGCGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1558  
3376 TAAAGCAATTTATGTAATCTCTTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3435  
1559 CCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1618

3436 CAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3495  
1519 GCGGTGATCTAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1678  
3496 GAGGTATTTATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3555  
1679 AGTGAACCTACAGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1738  
3556 AATGACATATCAATTTATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3615  
1739 AGATGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1798  
3616 GAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3675  
1799 CCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1858  
3676 CCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3735  
1859 AGACCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1918  
3736 AAACATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3795  
1919 TCGTGAACACCCCGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1978  
3796 TTGTTAATACCCCTCTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3855  
1979 GCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2038  
3856 GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3915  
2039 GCTACGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2098  
3916 GATATGTTATCAATTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3975  
2099 AGACGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2158  
3976 AGACTGAGTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4035  
2159 TGAACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2218  
4036 TAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4095  
2219 AGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2278  
4096 AGTATGATCAATTAATTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4155  
2279 TGCCCGCCACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2338  
4156 TACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4215  
2339 TCCGCAAGTGTCTCTCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2370  
4216 TCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4247

RESULT 6  
US-10-519-531-8  
; Sequence 8, Application US/10519531  
; Publication No. US2005024429A1  
; GENERAL INFORMATION:  
; APPLICANT: Folke, Thomas M.  
; TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR  
; FILE REFERENCE: 14114.037302  
; CURRENT FILING DATE: US/10/519, 531  
; PRIOR FILING DATE: 2004-12-27  
; PRIOR APPLICATION NUMBER: PCT/US03/20325  
; PRIOR FILING DATE: 2003-06-27  
; PRIOR APPLICATION NUMBER: 60/392, 630  
; NUMBER OF SEQ ID NOS: 8  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 8

LENGTH: 17207  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence:/note =  
US-10-519-531-8

Query Match 6.3%; Score 156.2; DB 6; Length 17207;  
Best Local Similarity 66.7%; Pred. No. 4.1e-17;  
Matches 289; Conservative 0; Mismatches 128; Indels 16; Gaps 4;

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QY 14 TGGCCGAGGCGCATGAGCCAGCCACCA---GCGCCAACTCTGTATGAGCGGCACCACT 70
DB 13954 TGGCTGAAGCAATGAGCCAAAGTAACAAATCCAGCTACATATATATACAGAAAGGCAATT 14013
QY 71 TCAAGGCGCCCAAGCGCATCATCAATGCTTCAACTGCGGCAAGAGGCGCCATCGCCC 130
DB 14014 TTAGAACCAAAAGAAAGAACTGTTAAGTGTTCATTTGCGCAAGAGAGGCGCATAGCCA 14073
QY 131 GCAAGCTGCGCGCCCGCCGCAAGAGGCGCTGTGAGAGTGCAGGCAAGAGGCGCCACCA 190
DB 14074 AAAATTGCAAGGCGCCCTTAGAGAAAAGGCTGTTGAAATGTGAAAGAGAGCACCAAA 14133
QY 191 TGAAGACTGCAACCGAGCGCCAGCCAACTTTCCGCGAGAGACTGCGCTTCCCGCAGG 250
DB 14134 TGAAGATTGTACTGAGAGACAGGCTAA-TTTTAAAGGAGAGATCTGCGCTTCCACAG 14192
QY 251 GCAAGCGCCGCAAGTTCCTCCAGCGAGAGAACCGCGCCAAAGCCCAAGCGCGAGC 310
DB 14193 GGAAGCGCCAGGAATTTTCTTCAAGAGCAGACAGAGCCCAAGCCCAAGAGAGAGAC 14252
QY 311 TGCAGGTGCGCGG-----CGACAAACCCCGCAGCGAGGCGCGCCGAGCGCCAGGCA 364
DB 14253 TTCAGGTTTGGGAGAGAGACAACTCCTCTCAGAGAGAGAGCGGATACAGAGAA 14312
QY 365 -----CCCTGAACCTTCCCGAGATCACTGTGCGAGGCGCCCTGCTGAGATCAAG 418
DB 14313 CTGTATCTTTAGCTTCCCTCAGATCACTTTGGCAGAGAGCCCTCTGCAATTAACA 14372
QY 419 TGGGCGCGCCAGAT 431
DB 14373 GGGGAAGTGACAT 14385
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## RESULT 7

US-10-519-531-2  
Sequence 2, Application US/10519531  
Publication No. US2005024429A1  
GENERAL INFORMATION:  
APPLICANT: Polks, Thomas M.  
TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR  
FILE REFERENCE: 14114.037302  
CURRENT APPLICATION NUMBER: US/10/519,531  
CURRENT FILING DATE: 2004-12-27  
PRIOR APPLICATION NUMBER: PCT/US03/20325  
PRIOR FILING DATE: 2003-06-27  
PRIOR APPLICATION NUMBER: 60/392,630  
NUMBER OF SEQ ID NOS: 8  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 2  
LENGTH: 1503  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence:/note =  
US-10-519-531-2

Query Match 6.3%; Score 154.6; DB 6; Length 1503;  
Best Local Similarity 67.6%; Pred. No. 8.3e-17;  
Matches 282; Conservative 0; Mismatches 119; Indels 16; Gaps 4;

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QY 14 TGGCCGAGGCGCATGAGCCAGCCACCA---GCGCCAACTCTGTATGAGCGGCACCACT 70
DB 1088 TGGCTGAAGCAATGAGCCAAAGTAACAAATCCAGCTACATATATATACAGAAAGGCAATT 1147
QY 71 TCAAGGCGCCCAAGCGCATCATCAATGCTTCAACTGCGGCAAGAGGCGCCATCGCCC 130
DB 1148 TTAGAACCAAAAGAAAGAACTGTTAAGTGTTCATTTGCGCAAGAGAGGCGCATAGCCA 1207
QY 131 GCAAGCTGCGCGCCCGCCGCAAGAGGCGCTGTGAGAGTGCAGGCAAGAGGCGCCACCA 190
DB 1208 AAAATTGCAAGGCGCCCTTAGAGAAAAGGCTGTTGAAATGTGAAAGAGAGACACCAA 1267
QY 191 TGAAGACTGCAACCGAGCGCCAGGCGCAACTCTTCCGCGAGAGACTGCGCTTCCCGCAGG 250
DB 1268 TGAAGATTGTACTGAGAGACAGGCTAA-TTTTAAAGGAGAGATCTGCGCTTCCACAG 1326
QY 251 GCAAGCGCCGCAAGTTCCTCCAGCGAGAGAACCGCGCCAAAGCCCAAGCGCGAGC 310
DB 1327 GGAAGCGCCAGGAATTTTCTTCAAGAGAGACAGAGCCCAAGCCCAAGAGAGAGC 1386
QY 311 TGCAGGTGCGCGG-----CGACAAACCCCGCAGAGGCGCGCGCCGAGCGCCAGGCA 364
DB 1387 TTCAGGTTTGGGAGAGAGACAACTCCTCTCAGAGAGAGAGCCGATGAGCAAGGAA 1446
QY 365 -----CCCTGAACCTTCCCGAGATCACTGTGCGAGGCGCGCCCTGCTGAGCATCA 415
DB 1447 CTGTATCTTTAGCTTCCCTCAGATCACTTTGGCAGAGAGCCCTCTGCAATTA 1503
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## RESULT 8

US-10-507-928-3  
Sequence 3, Application US/10507928  
Publication No. US20050266024A1  
GENERAL INFORMATION:  
APPLICANT: POWDERMED LIMITED AND GLAXO GROUP LIMITED  
TITLE OF INVENTION: ADJUVANT  
FILE REFERENCE: N.88232B GCW  
CURRENT APPLICATION NUMBER: US/10/507,928  
CURRENT FILING DATE: 2004-09-17  
NUMBER OF SEQ ID NOS: 12  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 3  
LENGTH: 1503  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: nucleotide sequence of p55 gag insert in pGagOptrpr2  
US-10-507-928-3

Query Match 5.7%; Score 141.4; DB 6; Length 1503;  
Best Local Similarity 69.0%; Pred. No. 1.1e-14;  
Matches 223; Conservative 0; Mismatches 96; Indels 4; Gaps 2;

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QY 14 TGGCCGAGGCGCATGAGCCAGG---CCACGAGGCGCAATCTGTATGAGCGGCAGCACT 70
DB 1088 TGGCCGAGGCGCATGAGCCAGGAGTGAAGTCTCGCAACCATATATATGAGAGGCACT 1147
QY 71 TCAAGGCGCCCAAGCGCATCATCAATGCTTCAACTGCGGCAAGAGGCGCCATCGCCC 130
DB 1148 TCCGCAATAGGCGGAAGATCTGTAAGTGTTCATTTGCGGCAAGAGGCGCTATACGCCC 1207
QY 131 GCAAGCTGCGCGCCCGCCGCAAGAGGCGCTGTGAGAGTGCAGGCAAGAGGCGCCACCA 190
DB 1208 GCAAGCTGCGCGCCCGCTAGAGAAAGGCTGTTGAAAGTGCAGGCAAGAGGAGACACA 1267
QY 191 TGAAGACTGCAACCGAGCGCCAGGCGCAACTTCTCGCGAGAGACTGCGCTTCCCGCAGG 250
DB 1268 TGAAGACTGTACAGAGACAGAGCCAA-TTTTCTTGAAGAAATTTGGCGGAGCTACAG 1326
QY 251 GCAAGCGCCGCAAGTTCCTCCAGCGAGAGAACCGCGCCAAAGCCCAAGCGCGAGC 310
DB 1327 GGGAGACTGTATATTTCTGCAAGAGAGGCGCCAGCCAGCGCCCTGAGAGATCC 1386
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QY 311 TGCAGGTGCGCGGACACCC 333  
Db 1387 TTCAAGTCCGAGGTGAGACCA 1409

## RESULT 9

US-11-029-465-3  
; Sequence 3, Application US/11029465  
; Publication No. US20050256070A1  
; GENERAL INFORMATION:  
; APPLICANT: Braun, Ralph P.  
; APPLICANT: Thomsen, Lindy  
; APPLICANT: Van-Wely, Catherine  
; APPLICANT: Erl, Peter  
; TITLE OF INVENTION: Adjuvant  
; FILE REFERENCE: 033267-015  
; CURRENT APPLICATION NUMBER: US/11/029,465  
; CURRENT FILING DATE: 2005-01-06  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 3  
; LENGTH: 1503  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: nucleotide sequence of the p55 gag insert in  
; US-11-029-465-3

Query Match 5.7%; Score 141.4; DB 7; Length 1503;  
Best Local Similarity 69.0%; Pred. No. 1.1e-14;  
Matches 223; Conservative 0; Mismatches 96; Indels 4; Gaps 2;

QY 14 TGGCGGAGGCGCATGAGCCAGG---CCACCAAGCGCCAAATCTCTATGAGCGGCACT 70  
Db 1088 TGGCGGAGGCGCATGAGCCAGG---CCACCAAGCGCCAAATCTCTATGAGCGGCACT 1147  
QY 71 TCAAGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGCGCCACTGCGCC 130  
Db 1148 TCCGCATCAGCGGCAAGATCGTGAAGTCTTCAATGCGGCAAGAGGCGTATACCGCC 1207  
QY 131 GCAACTGCGCGCGCCCGCCGCAAGAGGCGTCTGAACTGCGGCAAGAGGCGCCACGA 190  
Db 1208 GCAACTGCGCGCGCCCGCTAGAAAGAGGCGTGTGAACTGCGGCAAGAGGCGACCGA 1267  
QY 191 TGAAGACTGACCGAGGCGCCAGCCCACTTCTCCGAGAGACTGCGCTTCCCGCCAG 250  
Db 1268 TGAAGACTGACCGAGAGCGACGAGCCAA-TTTTCTTGAAAGATTGTGCGCGACTACAG 1326  
QY 251 GCAAGCGCGCGGAGTTCCTCCAGCGAGAACCGCGCCCAAGCCCGACCGCGAGC 310  
Db 1327 GGGAGACTGTGTAATTTCTTGCAAAAGCGCGCCAGCCACCGCCCTTGAGGAATCC 1386  
QY 311 TGCAGGTGCGCGGACACCC 333  
Db 1387 TTCAAGTCCGAGGTGAGACCA 1409

RESULT 10  
US-10-858-730-142

; Sequence 142, Application US/10858730  
; Publication No. US20050255568A1  
; GENERAL INFORMATION:  
; APPLICANT: Bailey, Richard B.  
; APPLICANT: Blomquist, Paul  
; APPLICANT: Doten, Reed  
; APPLICANT: Driggers, Edward M.  
; APPLICANT: Madden, Kevin T.  
; APPLICANT: O'Leary, Jessica  
; APPLICANT: O'Toole, George  
; APPLICANT: Trueheart, Joshua  
; APPLICANT: Walbridge, Michael J.

; APPLICANT: Yorgey, Peter S.  
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID  
; FILE REFERENCE: 14184-030001  
; CURRENT APPLICATION NUMBER: US/10/858,730  
; CURRENT FILING DATE: 2004-06-01  
; PRIOR APPLICATION NUMBER: US 60/475,000  
; PRIOR FILING DATE: 2003-05-30  
; PRIOR APPLICATION NUMBER: US 60/551,860  
; PRIOR FILING DATE: 2004-03-10  
; NUMBER OF SEQ ID NOS: 364  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 142  
; LENGTH: 3513  
; TYPE: DNA  
; ORGANISM: Streptomyces coelicolor  
; US-10-858-730-142

Query Match 4.2%; Score 104.4; DB 6; Length 3513;  
Best Local Similarity 43.6%; Pred. No. 8e-09;  
Matches 905; Conservative 0; Mismatches 1131; Indels 42; Gaps 8;

QY 129 CCGCACTGCGCGCGCCCGCCGCAAGAGGCGTGTGAGTGGCGGCAAGGCGCCACCA 188  
Db 177 CCGCACTGCGCGCGCCCGCCGCAAGAGGCGTGTGAGTGGCGGCAAGGCGCCACCA 236  
QY 189 GATGAAGACTGACCGAGCGCCAGCCAACTTCTCCGAGAGACTGAGCTTCCCGCA 248  
Db 237 CTGCGTGAAGACCAACCTTCCGCGCCACCACTCCGCGCGAGTACGACATCC 296  
QY 249 GGGCAAGCGCGGAGTTCCTCCAGCGAGCAAGACCGGCGCAACGCCACACCGCGA 308  
Db 297 GAGCGGTCGACGAACTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGA 356  
QY 309 GCTGCAAGTGGCGGCGGCAACACCCCGCAAGAGCGCGCGCGCGCGCGCGCGCGCA 368  
Db 357 GTTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCA 416  
QY 369 GAATTCCTCCCGAGTCACTCTGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCA 428  
Db 417 G-----CTCCCACTCTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 467  
QY 429 GATCAAGAGCGCTGTGACACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCA 488  
Db 468 GCGCAAGCGCGAGGACTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCA 527  
QY 489 GCCCGCAAGTGAAGCGCCCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCA 548  
Db 528 GAGCTGTCTCGAGCCAAAGCGCTGTGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCG 587  
QY 549 GTACGACCAATCTGTATGAGATCTGCGCGCAAGAGCGCATCGGCAACCGTGTGATCG 608  
Db 588 CTGCACTCGCGCTCATCTGTCTGTGACCGTGAACACCGGCAACATGCTGTGCG 647  
QY 609 CCCCACTCGTGAATCATCTGCGCGCAACATGCTGAACCGAGCTGAGCTGCACTGAA 668  
Db 648 CTG-----GAGATCGCGCGCGCGCGCTGACCGCGCTGAACCGCTGCGCATGACATGAT 701  
QY 669 CTTCCTCATGAGCGCCCATGAGACCGTGTGCGGTGAAGTGAAGCGCGCGCGCGCG 728  
Db 702 CCGCTGAATCGCGCACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 758  
QY 729 CAAGGTGAAGAGTGGCGCGCGCGCGCGAGAGATGACAGGCGCTGACCGCGCATCTGGA 788  
Db 759 CCGGCACTCCCGCATCTCCGCTGACCTGATGCCAAGCGCGGTGCGCGCGCTCTCGGCA 818  
QY 789 GAGATGAAGAGAGGCAAGATC---ACCAAGATCGCGCGCGAGAACCCCTCAACAC 845  
Db 819 GAGCGGCGCGCACTACCGCGTGAACCGCGCGCGCGCGAGCTGCGGACGACGACCTTGT 878  
QY 846 CCGCTGTGCGCATCAAGAGAGAGACGACCAAGTGGCGCAAGCTGTGATCTTCCG 905  
Db 879 GCGGAGTGAAGGCTGTCTGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 938

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QY 906 CGAGCTGAACAAGCGCACCCAGAGACTTGTGGAGGTGCAAGCTGGGCATCCCGCACCCCGC 965
DB 939 CCAAGTGTGTGAGCGGGTCCGGGACACC-----GCCCCACACCGACCGGACCC 986
QY 966 CGGCTTGAAGAAGAAGAGGTGAACGATGTGGAAGTGGGGCAGACGGCTTCTTAGGGCT 1025
DB 987 GCGGCCCGAGCGCGCGCGCTTGTCTTACAGACCGTGGCCCTTCCGCGAGAACCTTC 1046
QY 1026 GCCCTTGAACGAGACTTCCGCAAGTACACCGCTTACACATCCCCAGATCAACAGCA 1085
DB 1047 CTACTGTGCTATCGCGGAGCGGACCAACGCCACGGGTTCAGAAAGTTCCGGAGGCCAT 1106
QY 1086 GACCCCGGCGCATCGCTACCAAGTACAGTGTCTCCCAAGGGCTGAAGGGACGCCCA 1145
DB 1107 GCTGACCGCGCGCTGGAGCACTGCGTGAAGTGGCCCGGACCAAGATCCGGAGAGGGCG 1166
QY 1146 CATCTTCCAGAGACAGTACCAAGATCTTGAAGCCCTTCCGGCGCGGCAACCCGAGAT 1205
DB 1167 GCACATGTCTCGACTTGTGCTGACTACGTGCGGAGCGCGGTGCGCGACATGAGAGA 1226
QY 1206 CGTGAATTAACAGTACATGAGACGACCTTGAAGTGGGACGACCTTGAAGTGGGACAGA 1265
DB 1227 ACTGGCCGGCGGTTTCCGACCGCTCCACGCTGCGGATGCTCTGACTCCACCGAGGT 1286
QY 1266 CGCGCCCAAGATCGAGAGCTGCGAGACGACCTGTGCGCTGGGGCTTCAACACCCCGA 1325
DB 1287 CGACCTCATCCGGCGCGGCTGGAGAGTCCGGCGCGCGCGGTGATCACTCGGTCA 1346
QY 1326 CAAGAAGCACAGAAAGAGACCCCTTCTGTGATGGGTCTACAGCTGACCCCGAGCA 1385
DB 1347 CTACAGAGACGCGCGCGCGCGCGAGTCCGGTTCGCCCGCTCAACAACTGCGCCGAGA 1406
QY 1386 GTGGAACGTGACGCCCATGAGCTGCGCGGAGAGAGAGTGAACCGTGAACGACATCA 1445
DB 1407 GCAACGCGCGCGCTGATGCGGTGACATCGAGAGTGGAGACAGCCCGACCGGCA 1466
QY 1446 GAAGCTGTGGGCAAGCTGAGCTGGGCGCAGCGAGATCTACCCCGCATCAAGGTGCGCA 1505
DB 1467 GAAAGAAAGTTCGAGATGCGCGGACGGCTCATTCAGACGCTCACCGGCACTGGGGCATCA 1526
QY 1506 GCTGTGCAAGCTGTGCGCGCGCGCGCAAGGCCCTGACCGACATGTGTCCCTGACCGAGA 1565
DB 1527 CGAGTCCGACATCTGTGACTGCTGACTGCTTCACTTCGACCGGCGAGAGAGATC 1586
QY 1566 GCGCGAGCTGAGCTGGCGCGGAGAACCGCGAGATCTGCGCGAGCGCGTGAACGGGTGA 1625
DB 1587 CCGCAAGAGACGGCTTGGCCACATTCAGAGGATCCGAGAACTCAAGCGGGCGCACCCGA 1646
QY 1626 CTACGACCCCGAGAGAGACTTGTGGCCGAGATCCAGAAAGAGAGCGCACGACATGTGAC 1685
DB 1647 CGTGCAGACACGCTGGCTGTCTGCAACATCTTCCGCTTCAACCCCGCGCGCAT 1706
QY 1686 CTACAGATCTTACAGAGCGCTTCAAGAACTGAAAGCCGCGCAAGTACCCCAAGTGG 1745
DB 1707 CCGTCAACTCGTCTTCTCGACGAATGCTCAAGGCGCGCTGGAACCTCGCATGT 1766
QY 1746 CACCGCGCACACAGAGCTGAAAGAGCTGACCGGAGCGCGTGCAGAAAGTTCGCAATGA 1805
DB 1767 GCAACGAGAGCAATCTTGCAGATCGCCGCTTGA---GAAAGAGAGGTTCACACCGC 1823
QY 1806 GAGCATGTGATCTGGGGGCAAGACCCCAAGTTCCGCTGCCATCCAGAGAGACCTG 1865
DB 1824 CTTGAACTTATCTACACCGCGCGCGCGAGGGCTAGACCCCTCTGMAAA---GCTCAT 1880
QY 1866 GAGAGACTGTGAGACGACTTACTGCAAGCCACCTGATCCCGAGTGGAGTTCTGAA 1925
DB 1881 GAGAGCTTGTGAAGGGCGCACCGCAAGTGTGAGAGGCTTCNAAGGCGAGAGACTGGC 1940
QY 1926 GACCCCGCGCTGTGAGAGCTGTGTGTAACAGCTGGAAGAGAGCCCATCATCGCGCGCA 1985
DB 1941 CGCCTTCCGCTGAGAGAGCGCTCAAGCGCGCATCATGACGCGAGAGAAAGAGCGCT 2000

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QY 1986 GACCTTACGTGAGACGCGCGCGCAACCGGAGACCAAGATGCGCAAGCGCGCTACGT 2045
DB 2001 CGAAGAGAGACTTCAGACAG---GCCCTCGGAGACGCGCGCGCTCGAGATCTCAAGCA 2057
QY 2046 GACGACCGGGCGCGGAGAAAGATCTGAGCTTGAACGAGACCAACCAAGAGACCGA 2105
DB 2058 CACCTGCTGACAGTATGAAAGTGTGCGGAGACTGTTCGGCTCGGCGAGATGCACT 2117
QY 2106 GCTGACGCGCATTCAGCTGCGCGCTGACAGGACAGCGCGGACGAGGTGAACATGTGACCA 2165
DB 2118 GCGCTTGTGCTTCAAGTCCGCGGAGGTATGAAGACCGCGGTGCGCCACTGTGAGCCGA 2177
QY 2166 CAGCAGTACCGCTTGGGATATTCAGGCCCAAGCCG 2203
DB 2178 CATGAGAAAGACCAAGACAGACGAGAGGAGGACGATCG 2215

RESULT 11
US-10-858-730-38
; Sequence 38, Application US/10858730
; Publication No. US20050255568A1
; GENERAL INFORMATION:
; APPLICANT: Bailey, Richard B.
; APPLICANT: Blomquist, Paul
; APPLICANT: Doten, Reed
; APPLICANT: Driggers, Edward M.
; APPLICANT: Madden, Kevin T.
; APPLICANT: O'Leary, Jessica
; APPLICANT: O'Toole, George
; APPLICANT: Trueheart, Joshua
; APPLICANT: Walbridge, Michael J.
; APPLICANT: Yorey, Peter S.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID
; FILE REFERENCE: 14184-030001
; CURRENT APPLICATION NUMBER: US/10/858,730
; PRIORITY FILING DATE: 2004-06-01
; PRIOR APPLICATION NUMBER: US 60/475,000
; PRIOR FILING DATE: 2003-05-30
; PRIOR APPLICATION NUMBER: US 60/551,860
; PRIOR FILING DATE: 2004-03-10
; NUMBER OF SEQ ID NOS: 364
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 38
; LENGTH: 2736
; TYPE: DNA
; ORGANISM: Streptomyces coelicolor
US-10-858-730-38

Query Match 4.1%; Score 100.2; DB 6; Length 2736;
Best Local Similarity 41.1%; Pred. No. 3.8e-08;
Matches 890; Conservative 0; Mismatches 1258; Indels 15; Gaps 2;

QY 85 CGATCATCAAGTGTCTTCAACTGCGGCAAGAGGCGCAATGCGCCGCAACTGCGCGCC 144
DB 376 CGAAGCTTAAGTGGCGCCCGTGTTCACCGGCACTCCAGAGGCGCGCGCGCTCC 435
QY 145 CCGCGCAAGAGGCGTGTGAGAGTGGCGCAAGAGAGGCGCACCAATGAAGACTGCAAC 204
DB 436 GTCTCAAGAGTGGCGGCGCATTCGCGCGCTCTGGAACACCGCGGTCAACGATGCGAC 495
QY 205 GAGCGCGAGGCAACTTCTTCCGCGAGACCTGCGCTTCCCGAGGCAAGGCGCGGAG 264
DB 496 CGCGCGCGCTTGAACACCGCGCTTCCGAGAACATGACCTTGTGCGAGACGAGAG 555
QY 265 TTCCCAAGAGAGAGAACCGCGCGCAACAGCCCAAGCGCGAGCTGACGTCGCGCGC 324
DB 556 CTGCGGTGTGTGCGCGCGCGAGCGCGGAGAGAGGCGCGCAACCATCTACTACCTGAC 615
QY 325 GACAAACCGCGAGAGGCGCGCGCGAGCGCGCAAGGCGCAAGGCACTTCCCGAGATC 384
DB 616 GAGCTGACCTTGGCGCGCGCGTGGCGAGCTCTTGAAGACCTTACCGCGGCTGAGCGG 675

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QY 385 ACCCTGTGGCAGCGCCCTGTGTGA-----GCATCAAGTGTGGCGGCAGATCAAGAG 438  
Db 676 GCGCGGCGTCAAGGCTCCCGAGAGACACCGGCCCTCTCACTTGGGACCTGGATGGCGGC 735  
QY 439 GCCCTGTGAACAACGGCGCCGAGACACCGTGTGGAGAGATGAGCTTCCCGGCAAG 498  
Db 736 GACCGCGACCGCAACCCCAAGTCAACCCCGAGGTGACCTTGGAGAGTCTCATCTCCAG 795  
QY 499 TGGAAAGCCCAAGATGATGTGGGGGCATTGGCGGCTTTCATCAAGGTGGCCAGATGAGACAG 558  
Db 796 CACGACGCGGATTAAGAGCCCTGGAGATGATGAGAGCTGGCGGCTTCTCTCC 855  
QY 559 ATCTGTGATGAGATGTGGCGAAGAAAGGCATTCGACACCGTGTGATGAGGCCCAACCC 618  
Db 856 AACTTCATTCGGTACGCGGTGGAGACCGAGGAACGTGTGGCTGTCCAGGCGGACCTG 915  
QY 619 GTGAACATCATGTGGCGGACATGTCTGACCCAGCTGGGCTGACCTTGAACCTTCCCATC 678  
Db 916 GAACGCTCTCCCGAGATGAGCCCGCTTCAAGAGCCCTCAACGCGGAGAGCCCTAACCG 975  
QY 679 AGCCCCATGAGAACCGTGGCCGTGAAGCTGAAGCCCGGATGGAAGCGGCCCAAGGTGAAG 738  
Db 976 CTCAAGGCACTGTGATCCGACGAAGCTGGAGAAACACCAAGACAGCGCTTGGCCAGGG- 1034  
QY 739 CAGTGGCCCTGACCCGAGAGAAAGATCAAGGCGCTGACCGCCATCTGGAGAGATGAG 798  
Db 1035 -----CACCCCGACGAAGAGCGCGCGACTACCTTGGGACCGCCAGCTCATGAC 1086  
QY 799 AAGAGAGGCAAGATTAACAAGATCGGCCCCGAGAACCCCTTACACACCCCGTGTGGCC 858  
Db 1087 GACCTGACCATGTGTCAAGACTGTGTGGCGAACAACGCGGCGGCTGTGGCGAGCGAG 1146  
QY 859 ATCAAGAAGAAAGACAGACCAAGTGGCGCAAGCTGTGAGACTTCCGAGAGCTGAACAAG 918  
Db 1147 GCGCTCGCCCGGACCATTCGACACCTTGGCGCGCTTGGGCTTCAGCTGGCCACCATGAGAC 1206  
QY 919 CGCACCCAGGACTTCTGGAAGGTGCAAGCTGGGACATCCCCACCCCGCGGCTGAAGAG 978  
Db 1207 GTCCGCGAGACAGCGGAGGCCACCAACGCGCTTGGGCGAGCTTGGACCGGCTGGGC 1266  
QY 979 AAGAAAGAGCTGACCTGTGTGAGACGTGGGACAGCGCTTACAGCTGCGCTTGGAGCGAG 1038  
Db 1267 GAGGAGTCTTGGCGCTACGCGACATGCGCGCGAGTACCGGACCAACCTCTCCCAAG 1326  
QY 1039 GACTTCGCGAAGTACACGCGCTTACCAATCCCGACATCAACAAGAACCCCGGCGATC 1098  
Db 1327 GAATCGGCTCCCGAGGCGCGTGGGCGCCGACCCCGCGCTGTGAGCGCGCGGCGAG 1386  
QY 1099 CGCTACAGTACAAAGTGTGCTGCCCGAGGCTGGAAAGGCGAGCCCGACGATCTTCCAGAGC 1158  
Db 1387 AAGAACCTTCGGGTCTTCAAGACGCTCGCGCGCGCTTGAAGGTCTTGGGCGCGAGGTC 1446  
QY 1159 AGCATGACCAAGATCTTGAAGCCCTTCCGCGCGCGCAACCCCGAGATGTGTATCTACAG 1218  
Db 1447 ATCGAGTCTTACATCATCTCCATGTGCCAGGCGCGCGCAAGTCTTGGCGCGCGGTA 1506  
QY 1219 TACATGAGAGACTGTAGTGGGCGAGCACTGAGATCGGCGACAGACCGGCGCAAGATC 1278  
Db 1507 CTGGCGCGGAGGCGGCGGTGATGCACTGACGCGGCTGGGCAAGATCGGATCGGTG 1566  
QY 1279 GAGGAGCTGCGCAAGCACTGTGTGCGTGGGCTTACACACCCCGGACAAAGAGCAG 1338  
Db 1567 CCGGTGTGAGAGACACCGAGAGCTGAAGGCGCGCGACACATCTTGAAGGACCTGTGTC 1626  
QY 1339 AAGAGCCCTCTTCTGTGATGGGCTACAGCTGACACCCGACAGTGAACCTGTGAG 1398  
Db 1627 GCCGACCCCTCTTACCGGCGCTGTGCGGCTGCGCGCGAGAGTCCAGAGGCTCATGCTC 1686  
QY 1399 CCGATGAGAGTCCCGAGAGAGAGAGCTGAAACCGGAGACATCCAGAGCTGTGGGC 1458  
Db 1687 GAGTACTCCGACTCTTCCAAAGTTGGCGGTATCACACCAAGCAGTGGAGATTCACCGC 1746  
QY 1459 AAGTGAATGGGCGAGCAAGATCTACCCCGGATCAAGGTGGCGCAAGCTGTGAAGCTG 1518

Db 1747 GCCAGGCGCGGCTGGCGGAGAGTGGCCACCGCTACCGGCGGTACCGGCTGGCTTCCAC 1806  
QY 1519 CTGGCGGCGCGCAAGGCGCTTGAACGACATGTGGTCCCTGACCCGAGAGGCGGAGCTGGAG 1578  
Db 1807 GCGCGCGCGGACCGTGTGGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1866  
QY 1579 CTGGCGGAGAACCGGAGATCTTGGCGGAGCCCGTGAACCGGCTGTATCAAGACCCGAGC 1638  
Db 1867 CCGTGGGCGGACCGTGGAGGCGGAGATCAAGGTCAACCGAGAGGCGGAGGTCTATCTCGAC 1926  
QY 1639 AAGACCTGTGGCGGAGATCAAGAGCGGCGGACACAGCTGGAACCTTACAGATCTTAC 1698  
Db 1927 AAGTACTCTATCCCGCGCTTGGCGGAGAACCTTGAAGCTGAGACCGTGGCGGACCTTC 1986  
QY 1699 CAGGAGCCCTTCAAGAACCTTGAAGACCGGCGGAGTACGCGCAAGATGGCGACCGCCACAC 1758  
Db 1987 CAGGCTTCGCGCTTGAACACCGGCGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 2046  
QY 1759 AACGACGTGAAGCAGCTGACCGAGCGGTGCAAGATCCGCAATGAGAGAGCATGTGATC 1818  
Db 2047 GCGCGATGAGACGTGTGTCTCCGAGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 2106  
QY 1819 TGGGCGAAGACCCCGAAGTTCGCTGCGCTGCAATCCAGAAAGAGACCTTGGAGACCTGTGG 1878  
Db 2107 CCGGACCTGCGGACCTTCTTCTGCGCTTCCACCCCGGTGACAGCTGCGGACCTTGAC 2166  
QY 1879 ACGGACTTACGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1938  
Db 2167 CTGGGCTGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 2226  
QY 1939 GTGAAGCTGTGTGTAACAGCTGAGAGAGAGCCCATCATCGGCGCGGAGACCTTTCATGTC 1998  
Db 2227 ATCCGTGGGTGTGTGTGTGTGAGCCAGATCCGCGGAGATGTGCGCGGTGTATCGGCGTC 2286  
QY 1999 GACGCGCGCGCAACCGGAGACCAAGATCGGCAAGCGCGCTACGTGACCGACCGGCGC 2058  
Db 2287 GGTCTCGGCGCTCAAGGCGCTTGGCGGAGCGGCGGCGGCGGCGGCGGCGGCGGCGG 2346  
QY 2059 CGGAGAAAGTGTGAGCGTGAACGAGACCAACCAAGAGCGAGCTGACGAGCGCATC 2118  
Db 2347 CAGAGTGGGACCTTCTTCCGACCTTCACTTCAACGTGAGATGACCTTCCGACAGAC 2406  
QY 2119 CAGCTGGCGCTGAGAGCAGCGGAGCGAGGTGAACATGTGACCGACAGCAGTACGCC 2178  
Db 2407 GACTTGGGATCGGCGGAGCATTAAGTGAACACCTGTGCGGAGAGGCTCAAGGACGTC 2466  
QY 2179 CTGGGCAATCAAGCGGCGGAGCGGCGGAGCAAGAGCGAGAGCTGTGTAACCAATCATC 2238  
Db 2467 TTCGACACATCAAGGCGGAGCAAGAGCTCAACGTCGCGGAGGTCTTGGCGGTACCGGC 2526  
QY 2239 GAG 2241  
Db 2527 GAG 2529

RESULT 12  
US-11-075-185-57  
; Sequence 57, Application US/11075185  
; Publication No. US20050266434A1  
; GENERAL INFORMATION:  
; APPLICANT: REEVES, CHRISTOPHER D  
; APPLICANT: JULIEN, BRYAN  
; APPLICANT: REID, RALPH  
; TITLE OF INVENTION: BIOSYNTHETIC GENE CLUSTER FOR AMBRUTICINS  
; FILE REFERENCE: 010099.03  
; CURRENT APPLICATION NUMBER: US/11/075,185  
; PRIOR FILING DATE: 2005-03-07  
; PRIOR APPLICATION NUMBER: US 60/551,103  
; PRIOR FILING DATE: 2004-03-08  
; PRIOR APPLICATION NUMBER: US 60/566,290  
; PRIOR FILING DATE: 2004-05-04  
; NUMBER OF SEQ ID NOS: 61

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; SOFTWARE: Patentin version 3.3
; SEQ ID NO 57
; LENGTH: 1434
; TYPE: DNA
; ORGANISM: Sorangium cellulosum
US-11-075-185-57

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|                       |              |                    |                 |              |
|-----------------------|--------------|--------------------|-----------------|--------------|
| Query Match           | 3.8%         | Score 94.8;        | DB 7;           | Length 1434; |
| Best Local Similarity | 45.0%;       | Pred. No. 2.8e-07; |                 |              |
| Matches 480;          | Conservative | 0;                 | Mismatches 577; | Indels 9;    |
|                       |              |                    |                 | Gaps 3       |

|    |      |                                                                   |      |
|----|------|-------------------------------------------------------------------|------|
| OY | 221  | TTCCGCGAGGACCTGAGCCCTTCCCCAGGGGCAAAAGGCGCGGAGTTTCCCAAGGACGAAACAAC | 283  |
| Db | 176  | TAGCGCGGATGCTCCGCGCGACCCCCCGCAAGCCCCCGCGCGCTCGCCCGCTGTC           | 235  |
| OY | 284  | GGCGCAACAGCGCCACCAAGCCGCGAGCTGACAGTGTGCGGCGACAAACCCCGACGAG        | 343  |
| Db | 236  | CCGCGCGAGCGCGGAGACGACTTCAAGCGACAGCGATGCGACGCGCTTTCGCTGCGCGCG      | 295  |
| OY | 344  | CCGCGCGCGAGCGCGCAAGGACCTTGAATTCCCCAGATCACTCTG---TGGCAAGCGCC       | 400  |
| Db | 296  | TGCGGCTTCGCGCCCGAAGGCGGAGGGTTCAGACCGCGCTCTCTCTGAGGCGGCTCGCG       | 355  |
| OY | 401  | CCCTGTGTAGCATGAAGTGGGCGGCGCAAGATCAAGAGAGGCGCTGTCTGACACAGCGCGCG    | 460  |
| Db | 356  | GGCGGCGCGCCCGCGCTGACCTTCAACCGCGGCGGCTGTGGCGGACCTTCGACAAAGCGCTGT   | 415  |
| OY | 461  | ACGACACCGTCTGAGAGAGATGAGCCTGCCCCGCAAGTGAAGCCCAAGATATCGCG          | 520  |
| Db | 416  | CGTTTCATCTACAGAGAGCGCGCGCAACCTCGCGGCTCGCGGCGGTACGTGCGCGAGT        | 475  |
| OY | 521  | GCATTCGCGGCTTCATCAAGGT---GGCGCATACAGACAGATTCCTGATGAGATCTGCG       | 577  |
| Db | 476  | GAGCTTCGCGCGGTGCGCAGTTCCTTCAGGCCACGAGTGTGTGCGCTGTGTCCAGAGGAGC     | 535  |
| OY | 578  | GCAAGAAAGGCATCGGCAACCGTGTGATTCGCGCCACCCCGCTGAGACATATCGGCGCA       | 637  |
| Db | 536  | CCATTCGAGCGAAAGGGGCTGACAGGACGTGCTCTTCGAGCCGAGAACGCTGCGTCTCG       | 595  |
| OY | 638  | ACATGTGATCCCACTGAGGTGGCTGCAACCTTGAATTCCCATCAAGCCCATGAGACGCTGC     | 697  |
| Db | 596  | AGAAAGACGTGAGAGCTCGTCGCGCACGCTCATGAGCGCGCAAGGGCTTATC---CCGACG     | 652  |
| OY | 698  | CCGTGAAGCTGAAGCCCGGCGATGAGCGGCGCCCAAGTGAAGCAGTGGCGCCCTGACGAGG     | 757  |
| Db | 653  | CCGCGCGGAGAACCGCGCGGAGATCGTGCSCGAGTGTGAGAGAGGTGCGCGCGCGC          | 712  |
| OY | 758  | AGAAATCAAGGCCCTTGAACCGGCATCTTGCAGAGATGAGAGAGAGGCGAAGATCAACA       | 817  |
| Db | 713  | TCGAGTCCGAGGTCCGCGACCGCGCTCTCTGCGGCGGTGCGCGGAGCAACGACGAGCCGC      | 772  |
| OY | 818  | AGATCGGCGCCCGAGAACCCCTTACAAACACCCCGGTGTTTGCATCAAGAGAAAGACAGCA     | 877  |
| Db | 773  | TGCGGCTCTCAGAGAACTTCGACTGGAAGCCACACCATCCGCAAGAAACTGAGAGGGGTGCG    | 832  |
| OY | 878  | CCAAATGCGCGCAAGCTGGTGAATTCCGCGGAGCTGAACAAGCGCACCCAGGACTTTCGGG     | 937  |
| Db | 833  | ACGCGAAGCGGCGCGCTCTGCTCCGGAACAAGCTCTATTTCTGGCGCAACGAGCGGAA        | 892  |
| OY | 938  | AGGTGACAGCTGGGCATATCCCAACCCCGCGGCTGAGAGAGAAAGAGAGCTGACGCTGC       | 997  |
| Db | 893  | GCGACAGATGGGACGTGGGCATCTCTGTGACAGTAGTCGGGCTCGATGAGGCGAGAGCTGC     | 952  |
| OY | 998  | TGAGAGTGGCGGACGCTTACTTCAAGCTGCCCTCTGAGAGAGAACTTCCGCAAGTACACCG     | 1057 |
| Db | 953  | TCCTACAGCTCAATCATATGGCGGAGATCTTTCGCTGCTGACGTCCTCTCGCACCCGGCTCC    | 1012 |
| OY | 1058 | CCTTACCACTCCCAAGCATCAACAACGAGAACCCCGGAGTCGCTACCAAGTACAGCTGC       | 1117 |
| Db | 1013 | TCTTCTTGCACACCGAGGTGCTGACGTGACCTCGAATGCTGTGAGTCGCGGTGACGCTGC      | 1072 |
| OY | 1118 | TGCCCCAGGGCTGGAAGGCGAGCCCCAGACTTTCAGAGCAGATGACCAAGATCTTGG         | 1177 |

| Accession | Sequence                                                              | Position |
|-----------|-----------------------------------------------------------------------|----------|
| Db        | 1073 TGTTCACAGCGCAGACTCGGCGCGCGGCACCCGACATCAACCGCGCGTGGCCATCACCCGACAG | 1132     |
| Oy        | 1178 AGCCCTTCGCGCGCCCGGCACCCCGAGATCGATCTACAGTACATGACGACGCTGTACG       | 1237     |
| Db        | 1133 CGAATTCATCAGACCAACCGAGAAAGACGCTGCTCATCTGATCATCACGCACTGTTCGAGG    | 1192     |
| Oy        | 1228 TGGCAGACGACTTGAATATCGGCGACGACCGCGCAAGATGTGAGAGA                  | 1283     |
| Db        | 1193 GCGGCAACGCGAGAGACTGTCGCGCGGCATAGCCGCACTGCGCGA                    | 1238     |

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RESULT 13
US-11-075-185-2
? Sequence 2, Application US/11075185
? Publication No. US20050266434A1
? GENERAL INFORMATION:
? APPLICANT: REEVES, CHRISTOPHER D
? APPLICANT: JULIEN, BRYAN
? APPLICANT: REID, RALPH
? TITLE OF INVENTION: BIOSYNTHETIC GENE CLUSTER FOR AMERUTICINS
? FILE REFERENCE: 010099.03
? CURRENT APPLICATION NUMBER: US/11/075,185
? CURRENT FILING DATE: 2005-03-07
? PRIOR APPLICATION NUMBER: US 60/551,103
? PRIOR FILING DATE: 2004-03-08
? PRIOR APPLICATION NUMBER: US 60/568,290
? PRIOR FILING DATE: 2004-05-04
? NUMBER OF SEQ ID NOS: 61
? SOFTWARE: PatentIn version 3.3
? SEQ ID NO 2
? LENGTH: 14172
? TYPE: DNA
? ORGANISM: Sorangium cellulosum
US-11-075-185-2

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|                       |              |                    |                 |               |
|-----------------------|--------------|--------------------|-----------------|---------------|
| Query Match           | 3.8%;        | Score 94.8;        | DB 7;           | Length 14172; |
| Best Local Similarity | 45.0%;       | Pred. No. 2.6e-07; |                 |               |
| Matches 480;          | Conservative | 0;                 | Mismatches 577; | Indels 9;     |
|                       |              |                    |                 | Gaps 3        |

|    |       |                                                                     |       |
|----|-------|---------------------------------------------------------------------|-------|
| QY | 224   | TCGCCGAGAAACCTGTGGCTTTCCTCCACGAGGCGAAAGCCCGCGAGTTCCTCCACGAGAACACAC  | 283   |
| Db | 11205 | TACGCGGATGATCCCGCGCGGACACCCCGCGAAAGCCCCGCGCGGCGCTGCGCCGCTGATGTC     | 11264 |
| QY | 284   | GGCGCCAAACAGCCCAACGAGCCCGGAGCTGCAGGTGTGCGCGCGCAACACCCCGACGAGAG      | 343   |
| Db | 11265 | CCGCGCGGCGCGCCGAGACGACCTTCAGCGACGACATTCGCGCGGCGCTTTCGCGGTTCGCGG     | 11324 |
| QY | 344   | CCGCGCGCGGAGAGCGCAAGGACCTCTGAACTTTCCCGCAAGATCACCCCTG---TGGCAGCGCC   | 400   |
| Db | 11325 | TGCGGCTTGCGGCCCGAGAGCGCGAGGAGGTTCACCCCGCGCCTTCTCTCGGCGGAGCTTGGCG    | 11384 |
| QY | 401   | CCCTGTAGGATCAAGGTGGGCGGCGCAGATTCAGAGAGGCGCTTCGTGACACCCGCGCGCG       | 460   |
| Db | 11385 | GGCGCGGCGCCCGCGCTGCAGCTGCACCCCGGCGGCGGCTGGGCGACCTGCACAAAGCGCTGT     | 11444 |
| QY | 461   | AACGACCCGTCGTGAGAGAGATGAGCTGTCCCGCAATGTGAAGCCCAAGATATGCGCG          | 520   |
| Db | 11445 | CGTTCATCTTACGACGAGCGCGCGGCAACCTTCGCGCGCTGTGCGGCGGTATGTCGCCGAGT      | 11504 |
| QY | 521   | GCATGGGCGGCTTCATCAAGT---GGGCGCAATACGACGAGATCTCGATGAGATCTGCG         | 577   |
| Db | 11505 | GGCTTCGCGCGGTGCGGAGTTCTTCACGACACGAGGTGTGTGGCGCTTCGTTCAGAAAGAGCA     | 11564 |
| QY | 578   | GCAAGAAAGGCATGTGGCGCACCGTGTGTGATGTGGCCCCCAACCCCGTGAAACATCATGCGGCGCA | 637   |
| Db | 11565 | CCATGAGACGAAAGGGGTGACGAGGTGCTCTTCGAGCGCCGAGACGCTCCGTTCTCTCG         | 11624 |
| QY | 638   | ACATGTGATCCCAAGCTGGGCTTGACACCTTGAATCTTCCCATCATGACGCCCATGGAACGCTGC   | 697   |
| Db | 11625 | AGAAAGAACGTGAGGTCTGTCTGCGACGCTCATGAGCGCGCAAGGGCGCTTCATC---CCGACG    | 11684 |
| QY | 698   | CCGTGAAGCTGAAGCCGCGCATGAGACGAGCCCAAGTGAAGCAAGTGGCGCCTTCGACGAGG      | 757   |

Db 11682 CCGGCGGAGAGACCGCCGCGAGATCTGTCGCGAGGTCGTGAGAGGTGCGCGCGC 11741  
Qy 758 AGAAGATCAAGAGCCCTGACCGGCATCTGCGAGGATGAGAGAGGCAAGATCAACA 817  
Db 11742 TCGAGTCCGAGGTCCGACCGCCCTCTCGGCGGCTGCGCGGAAACAGACGAGCCGC 11801  
Qy 818 AGATCGGCCGAGAACCCCTTACAAACCCCGGTTCGACATCAAGAAAGAGACACA 877  
Db 11802 TGGCGCTCTGAGAGACCTGACATGGAAGGCAACATCCGAGAGACCTGAAGGGGTGG 11861  
Qy 878 CCAAGTGGCGCAAGCTGTGTGAATTCGCGAGCTGAAACAGCGCAACCGAGACTTCTGGG 937  
Db 11862 ACGGAGCGCGCGCGCTCTCTCCCGAGCAAGCTTATTTCTGGCGCAACCGAGACGCGAA 11921  
Qy 938 AGGTGCAAGCTGGGATCCCGACCCCGCGCGCTGAAGAGAGAGAGAGAGAGAGAGAG 997  
Db 11922 GGCACGAGTGGAGCGTGGGCAATCTCTGTGACAGTCCGGCTCGATGGGCGAGAGCGTGC 11981  
Qy 998 TGGACGTGGGCGAGCGCTTACTTCAAGCTGCGCCCTGSAAGAGACTTCCGCAAGTACACG 1057  
Db 11982 TCTACAGCTCCATCATGCGCGGCGAATCTTCTGCTGCTGACGTCTCTCCGACCGCGCTCC 12041  
Qy 1058 CTTTACCATCCCGACATCAACAGAGACCCCGCGCATCCGCTACCAATCAACGCTGC 1117  
Db 12042 TCTTCTTGACACGAGGTCTGACGTGACCTCGATGCTGTGATCCGATCCAGCTGC 12101  
Qy 1118 TGCCCCAGGGCTGGAAGGGAGCCCCAGCATCTTCCAGAGAGATGAACCAAGATCTCTGG 1177  
Db 12102 TGTTCACGCGCGAGCTCGGCGGCGACGACATCAACCGCGCGCTGACGCCACGG 12161  
Qy 1178 AGCCCTTCGCGCGCGCAACCCCGAGATGATCTACAGTACATGAGACGACCTGTACG 1237  
Db 12162 CGAATCTCATGAGAGGACCGGAGAAAGAGCGTGTCTATCTGATCAACGACCTGTTCAGG 12221  
Qy 1238 TGGGAGGAGCACTTGAGATGCGCCAGCACCGCGCCCAAGATGAGGA 1283  
Db 12222 GCGGCAACGCGAGAGCTGTCGCGCGCATGCGCGCACTCGCGA 12267

RESULT 14  
US-11-075-185-55  
; Sequence 55, Application US/11075185  
; Publication No. US20050266434A1  
; GENERAL INFORMATION:  
; APPLICANT: REEVES, CHRISTOPHER D  
; APPLICANT: JULIEN, BRYAN  
; APPLICANT: REID, RALPH  
; TITLE OF INVENTION: BIOSYNTHETIC GENE CLUSTER FOR AMBRUTICINS  
; FILE REFERENCE: 010099.03  
; CURRENT APPLICATION NUMBER: US/11/075,185  
; PRIOR FILING DATE: 2005-03-07  
; PRIOR APPLICATION NUMBER: US 60/551,103  
; PRIOR FILING DATE: 2004-03-08  
; PRIOR APPLICATION NUMBER: US 60/568,290  
; PRIOR FILING DATE: 2004-05-04  
; NUMBER OF SEQ ID NOS: 61  
; SOFTWARE: Patentin version 3.3  
; SEQ ID NO 55  
; LENGTH: 1386  
; TYPE: DNA  
; ORGANISM: Sorangium cellulosum  
US-11-075-185-55

Query Match 3.6%; Score 88.6; DB 7; Length 1386;  
Best Local Similarity 44.0%; Pred. No. 2.8e-06;  
Matches 373; Conservative 0; Mismatches 474; Indels 0; Gaps 0;

Qy 937 GAGGAGCACTGCTGAGATCCCAACCCGCGGCTGAAGAGAGAGAGAGAGAGAGAGAG 996  
Db 31 GAGCGGGGCGTCTGCGAGCTCTCGACCGCGGCTCAAGAGAGAGAGAGAGAGAGAGAG 90  
Qy 997 CTGACGCTGGCGAGCGCTTACTTACGCTGCGCTGACGAGAGAGAGAGAGAGAGAGAG 1056

Db 91 TGGCGAGCTGCGCGCGCGAGAGCGCTGAGCTCTCGGCGGAGAGACTTGAAGTCTGC 150  
Qy 1057 GCTTTCACATATCCCGACATCAACAGAGACCCCGGCAATCCGCTACCAATCAAGTGT 1116  
Db 151 GTACCGACATGACATATCGCGGCGATAGCGGCGCTCGAGCTCTGCGAGCGGATGCCAG 210  
Qy 1117 CTGCGCGAGGCTGGAAGGGGAGCGCCGAGCATCTTTCAGAGAGAGATGACCAAGATCTTG 1176  
Db 211 AACCGGCGCGATCTGCGGCTCATGTGATCAACCGCTTTCGAGAGCTTCAACCGGCAAG 270  
Qy 1177 GAGCCCTTCGCGCGCGCGCAACCCCGAGATGTGTATCTACAGATCATGAGAGACTGTAC 1236  
Db 271 TCGCGAGATCGCGCGCGCGCTTACGATCTGTGACCAAGCGTGTGAGCTTCAAGCGCTC 330  
Qy 1237 GTGGGAGCGACCTGAGAGATCGGCGACAGCGCGCAAGATGAGAGAGAGAGAGAGAGAGAG 1296  
Db 331 CGGCTTACCTTCAAGCGCGCGCTTGCAGACCGGCGCTTCCGCGAGAGAGTGGCGGCTG 390  
Qy 1297 CTGCTGCGCTGGGCTTCAACACCCCGGACAAAGAGACCAAGAGAGAGAGAGAGAGAGAG 1356  
Db 391 CGGCGCGCGGAGAGAGCTCCCAACGTTTACAGAGAGATCTTCCGCGAGAGAGAGAGAGAG 450  
Qy 1357 TGGATGGGCTACGAGCTGACCCCGACAGATGAGACCGTGCAGCCCATCGAGCTGCCGAG 1416  
Db 451 AAGGCGCTTCTGATCTGTCTGACCGGAGTGCAGCTTCCGACAGCTGATCTTATCAAG 510  
Qy 1417 AAGGAGAGCTGAGACCGTGAACGATCAAGAGCTGTGGGCAAGTGAATCTGGGCGAGC 1476  
Db 511 GCGGAGAGCGGACCGGCAAGAGAGCTGTGCGGCGCGCGCTGTGACAGCGAGCGCGGCGC 570  
Qy 1477 CAGATTAACCCCGGACATCAAGAGTGCAGCTGTGCAAGCTGTGCGCGGCGCGCAAGGCG 1536  
Db 571 GCGGAGGCGGCTTCTGTGCGGAGTGAATGCGCGGAGTCCGAGCGCTCTCTGAGAGC 630  
Qy 1537 CTGACCGACATCTGCGCCCTTGAACCGAGAGAGCGGAGCTGAGAGCTGCGCGAGAACCGGAG 1596  
Db 631 GAGGTGTTGCGCACGCGCGGAGGCGCTTCAACCGAGCGCAAGGAGCGGAGAGCGGCTTG 690  
Qy 1597 ATCTGCGGAGAGCGCGGTCAGAGCGGCTGTACTACAGACCCGAGCAAGAGACTTGAAGAG 1656  
Db 691 TTGCGCGGAGCGGCGGCGGAGCGGAGCTGTTCTCTGACAGAGATGCGGAGAGCTCGGTCGG 750  
Qy 1657 ATCCAGAGAGAGGCGCACAGACAGTGAACCTTACAGATCTTACAGAGAGCGCTTCAAGAG 1716  
Db 751 CTCAGCGGAGAGCTCTGCGGCGCTTCAAGAGGCGGCTTCCGCGGCTGCGGCGGAGC 810  
Qy 1717 CTGAAGACCGGAGAGTACCGCAAGATGCGACCGCGCCACACAGAGAGAGAGAGAGAG 1776  
Db 811 GAGGAGGTCCCGCTGAGAGTGGCGCTCATCGCGGAGAGAGCGGAGACTTGAAGAGCGG 870  
Qy 1777 ACGGAGG 1783  
Db 871 ATCGAGG 877

RESULT 15  
US-10-522-037-2  
; Sequence 2, Application US/10522037  
; Publication No. US20050282166A1  
; GENERAL INFORMATION:  
; APPLICANT: LIBRAGEN  
; TITLE OF INVENTION: Method for the expression of unknown environmental DNA into adapt.  
; FILE REFERENCE: B0149W0  
; CURRENT APPLICATION NUMBER: US/10/522,037  
; CURRENT FILING DATE: 2005-01-24  
; NUMBER OF SEQ ID NOS: 16  
; SOFTWARE: Patentin version 3.1  
; SEQ ID NO 2  
; LENGTH: 37507  
; TYPE: DNA  
; ORGANISM: Artificial sequence  
; FEATURE:

OTHER INFORMATION: DNA sequence of clone FS3-135.  
US-10-522-037-2

Query Match 3.5%; Score 86.2; DB 6; Length 37507;  
Best Local Similarity 42.4%; Pred. No. 5,7e-06;  
Matches 1024; Conservative 0; Mismatches 1363; Indels 30; Gaps 9;

3 CGACGCGCACTGCGCGGCGCATGAGCCAGGCGCAACGAGCGCAACATCTGATGACGG 62  
DB CGGCGAGGCGCGTGCAGTGTGTCTGAATCGCTCTCGGCGAGGCGCATTTGCGCGCACT 12467  
63 CAGCACTTCAAGGCGCGCGCAAGCGCATCATAGTGTCTTCACTGCGCGCAAGAGGCGCA 122  
DB GCGCGCGCTGCGCGCGCTTTCGCGCTTTCATGAGTTCGCGCAAGCGCGCATCTAGAGAA 12527  
12468 GCGCGCGCTGCGCGCGCTTTCGCGCTTTCATGAGTTCGCGCAAGCGCGCATCTAGAGAA 12527  
DB CATGCGCGCGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 182  
12528 CAGCGCACTTCGCGCTGCGCGCGCGCTTTCGCGCAACATCTCTGATCTTCGCGCGCGCG 12587  
DB CCAACGATGAGAGCTGCAACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTT 242  
183 CCAACGATGAGAGCTGCAACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTT 242  
DB CCAAGCTCATGAGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 12647  
12588 CCAAGCTCATGAGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 12647  
DB CCCCCAGGCGCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 302  
243 CCCCCAGGCGCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 302  
DB CTTTCAGGAGAGG-----GCGTCTCTCGCGCGCTGCGCGCGCGCGCGCGCGCGCGCGCG 12701  
12648 CTTTCAGGAGAGG-----GCGTCTCTCGCGCGCTGCGCGCGCGCGCGCGCGCGCGCGCG 12701  
DB CCGCGAGCTGCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 362  
303 CCGCGAGCTGCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 362  
DB GCGCGTGAAGCTTTCGCTTATGAGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 12761  
12702 GCGCGTGAAGCTTTCGCTTATGAGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 12761  
DB CACCGTGAATCTTCCCCAGATCAACCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCG 422  
363 CACCGTGAATCTTCCCCAGATCAACCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCG 422  
DB GTTTCGCCAGCGCGCGTGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 12821  
12762 GTTTCGCCAGCGCGCGTGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 12821  
DB CCGCGAGATCAAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 479  
423 CCGCGAGATCAAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 479  
DB GTTTCGCCAGCGCGCGTGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 12881  
12822 GTTTCGCCAGCGCGCGTGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 12881  
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DB GAGTGTGCTGTGTGAACAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 12941  
12882 GAGTGTGCTGTGTGAACAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 12941  
DB GGTGCGCGCGATGCAACGATCTGTGATCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 599  
540 GGTGCGCGCGATGCAACGATCTGTGATCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 599  
DB GTTTCGCCAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13001  
12942 GTTTCGCCAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13001  
DB GCTGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 659  
600 GCTGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 659  
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13062 CCGCGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13118  
DB GAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 779  
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DB CATGACCAATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13178  
13119 CATGACCAATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13178  
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780 CATCTGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 839  
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13179 CCGCGCACTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 13179  
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DB GCGGAGAGAGCGCTTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13295  
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900 CTTTCGCGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 959  
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13296 CTTTCGAGGAGCTGCGCGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 13355  
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DB GCGCGCGAGTCGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 13415  
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DB CAGCGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1079  
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1080 CAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1139  
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1200 CAGAGTGTGATCTTACAGTACAGTACAGTACAGTACAGTACAGTACAGTACAGTACAGTAC 1259  
DB GAAAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGAC 13655  
13596 GAAAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGAC 13655  
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1260 CAGAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGACAGAC 1319  
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1500 GCGCGAGCTGTGCAAGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1559  
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13896 CCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 13955  
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DB CCGTGTGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1676  
1620 CCGTGTGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1676  
DB CCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14074  
14015 CCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14074  
DB CCAAGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1736  
1677 CCAAGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1736  
DB AGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14134  
14075 AGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14134  
DB CAAAGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1796  
1737 CAAAGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1796  
DB CAAAGCCTTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 14194  
14135 CAAAGCCTTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 14194  
DB CCGCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1856  
1797 CCGCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1856  
DB CCAACATCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14254  
14195 CCAACATCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14254  
DB GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1916  
1857 GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1916  
DB GGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14311  
14255 GGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14311  
DB GTTTCGTGAACACCCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1976  
1917 GTTTCGTGAACACCCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1976  
DB CCGCGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 14371  
14312 CCGCGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 14371  
DB CCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2036  
1977 CCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2036  
DB CAACTTACCTTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 14431  
14372 CAACTTACCTTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 14431  
DB CCGCTACGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2096  
2037 CCGCTACGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2096  
DB CCAATTCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14486  
14432 CCAATTCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14486

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QY 2097 GAAGACCGAGCTGAGAGCCATCCAGCTGCCCTGAGAGCAGCGGACGAGGTGAACAT 2156
Db 14487 GCACCGCGAGGCTGGAGCGCGCCATCGCCGAGGTCTATGGCGTGCAAGACGCCGTGGCTT 14546
QY 2157 CGTGACCGACAGCCAGTACGCCCTGGGCATATCCAGGCCCGAGCCCGACAAAGAGGAGAG 2216
Db 14547 CATCAGGGGCGACCGGACCAAGTCTCCACCATGGCCACCTGTTGGGGCCGCGACCT 14606
QY 2217 CGAGCTGGTGAACCAAGATCATCGAGCACTGATCAAGAAAGAGAGTGTACTGAGCTG 2276
Db 14607 CATGTGCAAGACCGGTTCTGTGCAACAGCATCTGATGGCATTCAGCTCTGGGCGC 14666
QY 2277 GGTGCC--GCCCAAGAGGCAATCGCGGCAACGAGCAGATCGACAAAGCTGTGAGCAA 2333
Db 14667 CAAGGCAATGGCTTCCCGCACAGACTGGCGGGCCCTGGACGAGCTGTGGCGGCA 14726
QY 2334 GGGCATCCGCAAGGTGCTGTTCTTGAACGGCATCGATGGCGGCAATCGTGAATCTACCACTA 2393
Db 14727 GCGCGGCCACTTTCGAGCGCGTGTGATCGTGAATGAGGGCGTCTACAGCATGGAACGGGA 14786
QY 2394 CATGACGACCTGTACG 2410
Db 14787 CTACCCGAGCTGCCCG 14803

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Search completed: December 31, 2005, 04:12:51  
 Job time : 304.387 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM nucleic - nucleic search, using SW model

Run on: December 30, 2005, 07:51:40 ; Search time 423.667 Seconds  
(without alignments)  
10333.913 Million cell updates/sec

Title: US-09-610-313b-31

Perfect score: 2463  
Sequence: 1 gtcgacgcaccatgcccga.....gggctagcaccggtgacatc 2463

Scoring table: IDENTITY NUC  
Gapop 10.0, Gapext 1.0

Searched: 1303057 seqs, 888780828 residues

Total number of hits satisfying chosen parameters: 2606114

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database:

Issued Patents NA:  
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

| Result No. | Score  | Query Match | Length | DB ID | Description      |
|------------|--------|-------------|--------|-------|------------------|
| 1          | 2046   | 83.1        | 2306   | 3     | US-09-475-515-82 |
| 2          | 2025.2 | 82.2        | 2312   | 3     | US-09-475-515-84 |
| 3          | 2019.2 | 82.0        | 2300   | 3     | US-09-475-515-83 |
| 4          | 1942.6 | 78.9        | 4319   | 3     | US-09-475-515-6  |
| 5          | 1909   | 77.5        | 8908   | 3     | US-09-393-795-12 |
| 6          | 1878.8 | 76.3        | 2305   | 3     | US-09-475-515-80 |
| 7          | 1852   | 75.2        | 2299   | 3     | US-09-475-515-81 |
| 8          | 1788.8 | 72.6        | 3012   | 3     | US-09-393-795-10 |
| 9          | 1651.8 | 67.1        | 4307   | 3     | US-09-552-950-2  |
| 10         | 1632.6 | 66.3        | 4307   | 3     | US-09-936-572-2  |
| 11         | 1624.6 | 66.0        | 4337   | 3     | US-09-936-572-14 |
| 12         | 1624.6 | 66.0        | 4353   | 3     | US-09-936-572-13 |
| 13         | 1624.6 | 66.0        | 4642   | 3     | US-09-936-572-12 |
| 14         | 1624.6 | 66.0        | 9772   | 3     | US-09-552-950-5  |
| 15         | 1566   | 63.6        | 8356   | 3     | US-09-872-733A-6 |
| 16         | 1530.6 | 62.1        | 4338   | 3     | US-09-872-733A-1 |
| 17         | 1309.6 | 53.2        | 2577   | 3     | US-09-952-060-5  |
| 18         | 1309.6 | 53.2        | 2650   | 3     | US-09-952-060-1  |
| 19         | 1307   | 53.1        | 4053   | 3     | US-09-952-060-34 |
| 20         | 1304.8 | 53.0        | 2577   | 3     | US-09-952-060-3  |
| 21         | 1304.8 | 53.0        | 2650   | 3     | US-09-952-060-7  |
| 22         | 1203.6 | 48.9        | 38519  | 3     | US-09-952-060-28 |
| 23         | 1203.6 | 48.9        | 9010   | 3     | US-09-184-418C-8 |
| 24         | 1203.6 | 48.9        | 9010   | 3     | US-10-290-579A-8 |

|    |        |      |      |   |                   |                   |
|----|--------|------|------|---|-------------------|-------------------|
| 25 | 1175.8 | 47.7 | 9913 | 3 | US-09-827-688-11  | Sequence 11, Appl |
| 26 | 1172.6 | 47.6 | 8972 | 3 | US-09-184-418C-9  | Sequence 9, Appl  |
| 27 | 1172.6 | 47.6 | 8972 | 3 | US-10-290-579A-9  | Sequence 9, Appl  |
| 28 | 1165.4 | 47.3 | 8959 | 3 | US-09-184-418C-11 | Sequence 11, Appl |
| 29 | 1165.4 | 47.3 | 8959 | 3 | US-10-290-579A-11 | Sequence 11, Appl |
| 30 | 1163.8 | 47.3 | 2467 | 3 | US-09-872-733A-3  | Sequence 3, Appl  |
| 31 | 1142   | 46.4 | 8992 | 3 | US-09-184-418C-4  | Sequence 4, Appl  |
| 32 | 1142   | 46.4 | 8992 | 3 | US-10-290-579A-4  | Sequence 4, Appl  |
| 33 | 1106.8 | 44.9 | 2601 | 3 | US-09-117-217-7   | Sequence 7, Appl  |
| 34 | 1106.8 | 44.9 | 2601 | 3 | US-09-117-217-9   | Sequence 9, Appl  |
| 35 | 1106.8 | 44.9 | 2601 | 3 | US-09-117-217-11  | Sequence 11, Appl |
| 36 | 1106.8 | 44.9 | 2601 | 3 | US-09-117-217-13  | Sequence 13, Appl |
| 37 | 1106.8 | 44.9 | 2601 | 3 | US-09-735-487-7   | Sequence 7, Appl  |
| 38 | 1106.8 | 44.9 | 2601 | 3 | US-09-735-487-9   | Sequence 9, Appl  |
| 39 | 1106.8 | 44.9 | 2601 | 3 | US-09-735-487-11  | Sequence 11, Appl |
| 40 | 1106.8 | 44.9 | 2601 | 3 | US-09-735-487-13  | Sequence 13, Appl |
| 41 | 1106.8 | 44.9 | 4307 | 3 | US-09-552-950-1   | Sequence 1, Appl  |
| 42 | 1106.8 | 44.9 | 4307 | 3 | US-09-552-950-1   | Sequence 1, Appl  |
| 43 | 1106.8 | 44.9 | 9719 | 3 | US-09-700-304-1   | Sequence 1, Appl  |
| 44 | 1105.2 | 44.9 | 9050 | 3 | US-09-184-418C-7  | Sequence 7, Appl  |
| 45 | 1105.2 | 44.9 | 9050 | 3 | US-10-290-579A-7  | Sequence 7, Appl  |

#### ALIGNMENTS

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RESULT 1
US-09-475-515-82
Sequence 82, Application US/09475515A
Patent No. 6602705
GENERAL INFORMATION:
APPLICANT: BARNETT, Susan
APPLICANT: ZUR MEGEDE, Jan
APPLICANT: SRIVASTAVA, Indresh
APPLICANT: LIAN, Ying
APPLICANT: HARTOG, Karin
APPLICANT: LIU, Hong
APPLICANT: GREER, Catherine
APPLICANT: SELBY, Mark
APPLICANT: WALKER, Christopher
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
FILE REFERENCE: 1621.002
CURRENT APPLICATION NUMBER: US/09/475,515A
CURRENT FILING DATE: 1999-12-30
NUMBER OF SEQ ID NOS: 90
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 82
LENGTH: 2306
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence:
US-09-475-515-82

Query Match 83.1%; Score 2046; DB 3; Length 2306;
Best Local Similarity 93.6%; Pred. No. 1.5e-314;
Matches 2159; Conservative 0; Mismatches 135; Indels 12; Gaps 2;

QY 170 GCGGCAAGAGGCGCCACGATGACGACCGAGCGCCAACTTCTTCGCG 229
 1 GCGGCGCGCAAGAGCAACAATGAAAGATTGACCTAGAGACAGGCTTAATTCTTCGCG 60
Db
QY 230 AGGACCTGGGCTTCCCGGAGGCGAGCGCGAGTTCCCGACGAGCAAGAACCGCGCA 289
 61 AGGACCTGGGCTTCTTCGCGAGGCGAGGCGCGAGTTCCCGACGAGCAAGAACCGCGCA 120
Db
QY 290 ACAAGCCCAACCAAGCCGAGCTGACAGTGGCGGCG-----ACAACCCCGCAGCGAGG 343
 121 ACAAGCCCAACCAAGCCGAGCTGACAGTGGCGGCGCGAGCAAGAACCGCTGAGCGAGG 180
Db
QY 344 CCGGCGCGGAGCGCCAGAGGAGCCCGT-----AATCTCCCGCAGATCAACCTGTGGCAGC 397

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Db 241 GCCCTCTGTGATCAATCAAGATCGGCGGCAGCTCAAGAGAGCGGTGTCTCAACCGGCG 300
Qy 458 CCGAGCAACCGGTGTGAGAGATGAGCTGCGCCGCGAAGTGAAGCCCAAGATGATCG 517
Db 301 CCGAGCAACCGGTGTGAGAGATGAACTGCGCCGCGAAGTGAAGCCCAAGATGATCG 360
Qy 518 GCGGATCGGCGCTTCAATCAAGGTGCGCAAGTACAGACAGATCTGTATCGAATCTGCG 577
Db 361 GCGGATCGGCGGCTTCAATCAAGGTGCGGAGTACAGACAGATCTCCGATGAGATCTGCG 420
Qy 578 GCAAGAGGCGCATCGGCAACGTGTGATCGGCGCCCAACCCCGTGAACATCATCGGCGCA 637
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Db 601 AGAAGATCAAGGCGCTGTGTGAGATCTGACCGAATGAGAGAGAGAGAGATCAACA 660
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Qy 938 AGGTGACACTGGGCACTCCCCCAACCCCGCGCTGTGAAGAGAGAGAGAGAGAGAGAGAG 997
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Qy 998 TGAAGTGGGCGAGCGCTACTTACAGGTGCGCTGTGAAGAGAGAGAGAGAGAGAGAGAG 1057
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Db 901 CTTTCAACCATCCCGAGCATCAACAAGAGACCCCGGCAATCGCTTACAGATCAACGTGC 960
Qy 1118 TGCCCCAGGCGTGAAGGCGAGCCCGAGCATTTTCAAGAGAGCATGACCAAGATCTGCG 1177
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Db 1021 AGCCCTTCGCGCGCCGCAACCCCGAGATCGTATCTACAGAGGCCCCCTGTACGTGGGCA 1080
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Qy 1358 GCTACAGAGCTGACCCCGAGCAAGTGAAGCGTGAAGCCCATGAGGCTGCGCGAGAGAGAG 1417
Db 1201 GCTACAGAGCTGACCCCGAGCAAGTGAAGCGTGAAGCCCATGAGGCTGCGCGAGAGAGAG 1260
Qy 1418 GCTGACCGTGAACGACATCCAGAAAGTGTGGGCAAGCTGAAGTGGCGAGCCAGATCT 1477

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Db 1261 GCTGACCGTGAACGACATCCAGAAAGCTGTGGGCAAGCTGAACCTGGGCGAGCCAGATCT 1320
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Db 1321 ACCCGGATCAAGGTGAAGAGAGCTGTGACAGCTGTGCGGCGGCGCAAGGCCCTTGAACG 1380
Qy 1538 ACATGTGCGCCCTTGAACCGAGAGGCGGAGCTGAGAGCTGGCCGAGAACCGGAGATCTGCG 1597
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Qy 1598 GCGAGCCCGTGAACAGGCGGTATCTACAGACCCCGAGAGAGACCTGTGTGCGGAGATCCGA 1657
Db 1441 AGGAGCCCGTGAACAGGCGGTATCTACAGACCCCGAGAGAGACCTGTGTGCGGAGATCCGA 1500
Qy 1658 AGCAGGGGCGAGACGAGTGAACCTACAGATCTACAGAGACCCCTTCAAGAACCTGAAGA 1717
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Db 1561 CCGGCAAGTACGCGCGAGTGGCGGCGGCGCGACCAACAGAGAGAGAGAGAGAGAGAGAG 1620
Qy 1778 CCGTGAAGAGATGCGCATGGAAGAGATCTGTATCTGGGGCAAGACCCCGAAGTTCCGCG 1837
Db 1621 CCGTGAAGAGATGAGCACCGAGAGCATGTGATCTGGGGCAAGATCCCGAAGTTCAAGC 1680
Qy 1838 TGCCCATCAAG 1897
Db 1681 TGCCCATCAAG 1740
Qy 1898 TCCCGAGTGGAGTCTGTGAACACCCCGGCTGTGAGAGCTGTGTGATCCAGCTGAGAG 1957
Db 1741 TCCCGAGTGGAGTCTGTGAACACCCCGGCTGTGAGAGCTGTGTGATCCAGCTGAGAG 1800
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Db 1801 AGGAGCCCATATATGGGGCGGCGGAGAGACCTTCTACGTGAGAGAGAGAGAGAGAGAGAG 1860
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Db 1861 AGTGGGCAAGCGGCGCTGAG 1920
Qy 2078 AGACCAACCAACAG 2137
Db 1921 AGACCAACCAACAG 1980
Qy 2138 GCGAGGTGAACATGTGTGACCGAGCAGCCAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAG 2197
Db 1981 TGAAGTGAACATGTGTGACCGAGCAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040
Qy 2198 ACAAGAGGAG 2257
Db 2041 ACAAGAGGAG 2100
Qy 2258 TGTACTGTGAGCTGGGTGCGCGCGCAAGAGGAGATCGAGGAGCAACGAGAGATCGAACAG 2317
Db 2101 TGTACTGTGAGCTGGGTGCGCGCGCAAGAGGAGATCGAGGAGCAACGAGAGATCGAACAG 2160
Qy 2318 TGTGAG 2377
Db 2161 TGTGAG 2220
Qy 2378 TCTACAGTATAG 2437
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RESULT 2  
US-09-475-515-84





Db 1681 TCAGCTGCCATCCAGAGAGACCTGGAGGCGCTGTGATGATGATCTGGAGGCCA 1740  
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 Db 1741 CTTGATTCCTCCGAGTGGAGGAGTTCTGTGAACACCCCCCTGTGTGAAGCTGTGATCCAGC 1800  
 Qy 1952 TGGAGAGAGAGCCCATCATCTGCGCGCCGAGACCTTCTAGTGAACGCGCGCCGCAACCGCG 2011  
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 Qy 2012 AGACCCAGATCTGCGAGAGCGCGCTCTAGTGAACCGAGCGCGCGCGCGCAAGAGTCTGAGCC 2071  
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 Qy 2072 TGACCGAGAGACCCAGAGAGCCGAGCTGAGAGCCCATCAAGCTGAGCCCTGAGAGCA 2131  
 Db 1921 TCGCGGACACCAACCAAGAGAGCCGAGCTGAGAGCCCATCAAGCTGAGCCCTGAGAGCA 1980  
 Qy 2132 GCGGCGAGGAGTGAACATCTGTGAACGACCAAGCAGTACGCTGTGAGCATCAACAGGCC 2191  
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 Db 2041 AGCCCGACAGAGAGAGAGCGAGCTGTGAGAACAGATCATGAGAGCTGTGATCAAGAGG 2100  
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 Db 2101 AGAAGGTGTACTGTGAGCTGTGAGCGCGCCGCAAGAGGAGTGTGCGGCGCAACGAGAGATCG 2160  
 Qy 2312 ACAAGCTGTGTGAGAGAGGAGCATCTGCAAGTGTCTTCTGTGAACGCGCATCATGAGCGCA 2371  
 Db 2161 ACAAGCTGTGTGAGAGGCGCGGAGCATCTGCAAGTGTCTTCTGTGAACGCGCATCATGAGCGCA 2220  
 Qy 2372 TCGTGTATTCACAGTACATGAGACGACTGTACGTGTGAGCGCGCGCGCTGTGATCGATT 2431  
 Db 2221 TCGTGTATTCACAGTACATGAGACGACTGTACGTGTGAGCGCGCGCGCTGTGATCGATT 2280  
 Qy 2432 AAAAGCTTCCGCGGCGTGTGACCGCGTGAATTC 2463  
 Db 2281 AAAAGCTTCCGCGGCGTGTGACCGCGTGAATTC 2312

## RESULT 3

US-09-475-515-83

Sequence 83, Application US/09475515A

Patent No. 6602705

GENERAL INFORMATION:

APPLICANT: BARNETT, Susan

APPLICANT: ZUR MEGEDE, Jan

APPLICANT: SRIVASTAVA, Indresh

APPLICANT: LIAN, Ying

APPLICANT: HARTOG, Karin

APPLICANT: LIU, Hong

APPLICANT: GREER, Catherine

APPLICANT: SELBY, Mark

APPLICANT: WALKER, Christopher

TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION

FILE REFERENCE: 1621.002

CURRENT APPLICATION NUMBER: US/09/475.515A

CURRENT FILING DATE: 1999-12-30

NUMBER OF SEQ ID NOS: 90

SOFTWARE: PatentIn Ver. 2.0

SEQ ID NO 83

LENGTH: 2300

TYPE: DNA

ORGANISM: Artificial Sequence

FEATURE:

OTHER INFORMATION: Description of Artificial Sequence:

US-09-475-515-83

Query Match 82.0%; Score 2019.2; DB 3; Length 2300;  
 Best Local Similarity 93.2%; Pred. No. 2.1e-310;  
 Matches 2150; Conservative 0; Mismatches 138; Indels 18; Gaps 3;  
 170 GCGGCAAGAGAGCGCCATCATGATGAGATCTGACCCGAGCGCGCAACTTCTTCCGCG 229  
 Db 1 GCGGCGCGGAGAGACACCAATGAAATGATGACTGTGAGAGACAGGCTAATTTCTTCCGCG 60  
 Qy 230 AGACCTGAGCTTCCCGCAAGGCGCGCGAGTTCCCGAGGAGAGAGAGAGCGCGCA 289  
 Db 61 AGACCTGAGCTTCTCTGAGAGGCGAGGCGCGCGAGTTCAAGAGAGAGAGAGCGCGCA 120  
 Qy 290 ACAAGCCCAACCGCGAGCTGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 343  
 Db 121 ACAAGCCCAACCGCGCGAGCTGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 180  
 Qy 344 CCGGCGCGGAGCGCGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 397  
 Db 181 CCGGCGCGGAGCGCGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 240  
 Qy 398 GCGGCGTGTGAGATCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 457  
 Db 241 GCGGCGTGTGAGATCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 300  
 Qy 458 CCGAGACACCGTGTGAGAGAGATGAGCTTCCCGCAAGTGTGAGAGCGCGCAAGTGTATCG 517  
 Db 301 CCGAGACACCGTGTGAGAGAGATGAGCTTCCCGCAAGTGTGAGAGCGCGCAAGTGTATCG 360  
 Qy 518 GCGGCGATCTGCGCGCTTCAATCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 577  
 Db 361 GCGGCGATCTGCGCGCTTCAATCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 420  
 Qy 578 GCAAGAGAGCGCATGAGGACCGGTGTGATCTGCGCGCGCGCGCGCGCGCGCGCGCGCG 637  
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 Qy 638 ACATGTGAGACCGAGCTGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 697  
 Db 481 ACATGTGAGACCGAGCTGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 540  
 Qy 698 CCGTGAAGCTGAGACCGCGCGCATGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 757  
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 Qy 818 AGATCGGCGCGGAGAACCGCTTCAACAACCGCGGTGTGCGCATCAAGAGAGAGAGAGCA 877  
 Db 661 AGATCGGCGCGGAGAACCGCTTCAACAACCGCGGTGTGCGCATCAAGAGAGAGAGAGCA 720  
 Qy 878 CCAAGTGTGCGAGCTGTGAGCTTCCCGAGAGCTGAAACAAGCGCAACCAAGAGCTTCTGCG 937  
 Db 721 CCAAGTGTGCGAGCTGTGAGCTTCCCGAGAGCTGAAACAAGCGCAACCAAGAGCTTCTGCG 780  
 Qy 938 AGGTGAGCTGTGAGATCCCGCAACCGCGCGCGCTGAAAGAGAGAGAGAGCTGTGACCGTGC 997  
 Db 781 AGGTGAGCTGTGAGATCCCGCAACCGCGCGCGCTGAAAGAGAGAGAGAGCTGTGACCGTGC 840  
 Qy 998 TGAAGTGTGAGAGCGCTTACTTCAAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 1057  
 Db 841 TGAAGTGTGAGAGCGCTTACTTCAAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 900  
 Qy 1058 CTTTCAACATCTCCAGAGATCAACAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1117  
 Db 901 CTTTCAACATCTCCAGAGATCAACAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 960  
 Qy 1118 TGCCCAAGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1177  
 Db 961 TGCCCAAGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1020  
 Qy 1178 AGCCCTTCCGCGCGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1237

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Db ||||| 1021 AGCCCTTCGGAAGAGAACCCCGACATGATCTTACAG3CCCCCTGTACGTGGCA 1080
Qy ||||| 1228 GCGACTGAGATCGGCGAGCAACGCGCAAGATCGAGAGCTGCGCAAGCACTGTGC 1297
Db ||||| 1081 GCGACTGAGATCGGCGAGCAACGCGCAAGATCGAGAGCTGCGCAAGCACTGTGC 1140
Qy ||||| 1298 GCTGGGGCTTCAACACCCCGCAAGAGACACAGAGAGAGCCCTTCTGTGATGG 1357
Db ||||| 1141 GCTGGGGCTTCAACACCCCGCAAGAGACACAGAGAGAGCCCTTCTGTGATGG 1198
Qy ||||| 1358 GCTACAGACTGACCCCGCAAGTGGAGACCTGACCCCATGAGTGGCCGAGAGAGA 1417
Db ||||| 1199 ----CGAGCTGACCCCGCAAGTGGAGACCTGACCCCATGAGTGGCCGAGAGAGA 1254
Qy ||||| 1418 GCTGGAACGTGAGACATCCAGAGCTGTGGGCAAGCTGGAAGTGGCCGAGAGATCT 1477
Db ||||| 1255 GCTGGAACGTGAGACATCCAGAGCTGTGGGCAAGCTGGAAGTGGCCGAGAGATCT 1314
Qy ||||| 1478 ACCCGGATCAAGGTGGCGCCAGCTGTGCAAGCTGTGCGCGCGCCAAAGGCTTGACCG 1537
Db ||||| 1315 AGCGGGATCAAGGTGGAAGAGAGCTGTGCAAGCTGTGCGCGCGCCAAAGGCTTGACCG 1374
Qy ||||| 1538 ACATGTGCGCTTCAACCGAGAGGCGCGAGCTGTGCAAGCTGTGCGCGCGCCAAAGGCTTGACCG 1597
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Qy ||||| 1598 GCGAGCCGTGACCGCGGTGTCTAGACCCCGAGAGAGCTGTGGCCGAGATCTCAGA 1657
Db ||||| 1435 AGGAGCCGTGACCGAGGTGTCTAGACCCCGAGAGAGCTGTGGCCGAGATCTCAGA 1494
Qy ||||| 1658 AGCAGGGCCAGACCGAGTGAACCTTACAGAGAGCCCTTCAAGAACCTGAGAGA 1717
Db ||||| 1495 AGCAGGGCCAGAGGCGAGTGAACCTTACAGAGAGCCCTTCAAGAACCTGAGAGA 1554
Qy ||||| 1718 CCGGCAAGTACCGCAAGATGCGCACCGCCCAACCAAGAGCTGTGACCGAGAG 1777
Db ||||| 1555 CCGGCAAGTACCGCGCATGCGCGCGCGCCCAACCAAGAGCTGTGACCGAGAG 1614
Qy ||||| 1778 CCGTGCAGAGATCGCATGAGAGAGATGTGATCTGTGGGCAAGACCCCGCAAGTCCGCGC 1837
Db ||||| 1615 CCGTGCAGAGATGTGAGACCGAGAGATGTGATCTGTGGGCAAGATCCCGCAAGTCCGCGC 1674
Qy ||||| 1838 TCCCATTCAGAGAGAGACCTGTGAGACCTGTGAGACCTGTGAGACCTGTGAGACCTGTGAG 1897
Db ||||| 1675 TCCCATTCAGAGAGAGACCTGTGAGACCTGTGAGACCTGTGAGACCTGTGAGACCTGTGAG 1734
Qy ||||| 1898 TCCCGGAGTGGAGATTGTGAAACACCCCGCTGTGTGAGAGCTGTGTGACAGCTGTGAGAGA 1957
Db ||||| 1735 TCCCGGAGTGGAGATTGTGAAACACCCCGCTGTGTGAGAGCTGTGTGACAGCTGTGAGAGA 1794
Qy ||||| 1958 AGGAGCCCATTCATCGGCGCGCGAGACCTTCTAGTGAACGCGCGCGCAACCGAGAGACA 2017
Db ||||| 1795 AGGAGCCCATTCATCGGCGCGCGAGACCTTCTAGTGAACGCGCGCGCAACCGAGAGACA 1854
Qy ||||| 2018 AGATCGGCAAGGCGCGCTAGTGAACGAGACCGGCGCGCGAGAGATGTGTGAGCTGTGAGAG 2077
Db ||||| 1855 AGTGTGGCAAGGCGCGCTAGTGAACGAGACCGGCGCGCGAGAGATGTGTGAGAGTGTGAGAG 1914
Qy ||||| 2078 AGACCAACCAAGAGAGACCGAGCTGAGAGCCATTCAGCTGTGCTGTGACAGAGAGAGGCA 2137
Db ||||| 1915 AGACCAACCAAGAGAGACCGAGCTGAGAGCCATTCAGCTGTGCTGTGACAGAGAGAGGCA 1974
Qy ||||| 2138 GCGAGGTGAACATTCGTGACCGAGACGAGTACGCGCTGTGAGATTCAGAGCCAGCCG 2197
Db ||||| 1975 TGGAGGTGAACATTCGTGACCGAGACGAGTACGCGCTGTGAGATTCAGAGCCAGCCG 2034
Qy ||||| 2198 ACAAGAGCGAGAGAGCTGTGTGAGACAGATTCATGAGAGAGCTGTGTGAGAGAGAG 2257
Db ||||| 2035 ACAAGAGCGAGAGAGCTGTGTGAGAGAGATTCATGAGAGAGCTGTGTGAGAGAGAG 2094
Qy ||||| 2258 TGTACTGAGCTGGGTGCGCGCCCAAGAGGCTGTGCGCGCAACAGAGAGATGTGAGAGC 2317

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Db ||||| 2095 TGTACTGAGCTGGGTGCGCGCCCAAGAGGATGTGCGCGCAACAGAGTGTGAGAGC 2154
Qy ||||| 2318 TGTGTAGACAGAGGATTCGCGCAAGTGTGTTCCTGTGACGCGATGTGAGGCGCAATCGTGA 2377
Db ||||| 2155 TGTGTAGACGCGCGGATTCGCGCAAGTGTGTTCCTGTGACGCGATGTGAGGCGCAATCGTGA 2214
Qy ||||| 2378 TGTACAGTATACAGAGACCTGTGACGTGGGCAACGCGCGCGCTGTGAGATTCAGTAAAGC 2437
Db ||||| 2215 TGTACAGTATACAGAGACCTGTGACGTGGGCAACGCGCGCGCTGTGAGATTCAGTAAAGC 2274
Qy ||||| 2438 TTCCCGGGCTTACGACCGGTGATTC 2463
Db ||||| 2275 TTCCCGGGCTTACGACCGGTGATTC 2300

RESULT 4
US-09-475-515-6
; Sequence 6, Application US/09475515A
; Patent No. 6602705
; GENERAL INFORMATION:
; APPLICANT: BARNETT, Susan
; APPLICANT: ZUR WEGEDE, Jan
; APPLICANT: SRIVASTAVA, Indresh
; APPLICANT: LIAN, Ying
; APPLICANT: HARTOG, Karlin
; APPLICANT: LIU, Hong
; APPLICANT: GREER, Catherine
; APPLICANT: SELBY, Mark
; APPLICANT: WALKER, Christopher
; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
; TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES
; FILE REFERENCE: 1621.002
; CURRENT APPLICATION NUMBER: US/09/475,515A
; CURRENT FILING DATE: 1999-12-30
; NUMBER OF SEQ ID NOS: 90
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 6
; LENGTH: 4319
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: Description of Artificial Sequence: synthetic
; OTHER INFORMATION: HIV-Gag-polymerase
; US-09-475-515-6

Query Match 78.9%; Score 1942.6; DB 3; Length 4319;
Best Local Similarity 89.7%; Pred. No. 2.7e-298;
Matches 2129; Conservative 0; Mismatches 225; Indels 19; Gaps 4;

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|    |      |                                                                 |       |
|----|------|-----------------------------------------------------------------|-------|
| QY | 381  | GATACACCTGTGGCGAGCCGCCCTGGTAGAGATCAAGGTGGGGCCAGATCAAGAGGC       | 440   |
| Db | 1481 | GATCACTCTTTGGCAACGACCCCTCTGTCAKAGTAAGATCCGGCCACGCTCAAGAGGC      | 15140 |
| QY | 441  | CTGTGTGACACCGCGCGCGACGACACCGTGTGAGAGATGAAGCTTGGCCGCAAGT         | 500   |
| Db | 1541 | GCTGCTGACACCGGCGCGCGACGACACCGTGTGAGAGATGAACCTGCGCGCAAGTG        | 1600  |
| QY | 501  | GAAGCCCAAGATGATCCGGCGGCATCCGGGGCTTCA TGAAGTCCGCCAGTACAGACNAT    | 560   |
| Db | 1601 | GAAGCCCAAGATGATCCGGCGGCATCCGGGGCTTCA TGAAGTCCGCCAGTACAGACNAT    | 1660  |
| QY | 561  | CTGTATCGAGATCTGCGGCAAGAAAGCCATCGGCACCGTGTGATCGGCCCCACCCCGT      | 620   |
| Db | 1661 | CCCCGTGAGATCTGCGGCAAGAAAGCCATCGGCAACCGTGTGATCGGCCCCACCCCGT      | 1720  |
| QY | 621  | GAACATCATCGGCGCGCAACATGCTGACCCAGCTGGGCTGCAACCTGAACTTCCCATCAG    | 680   |
| Db | 1721 | GAACATCATCGGCGCGCAACATGCTGACCCAGCTGGGCTGCAACCTGAACTTCCCATCAG    | 1780  |
| QY | 681  | CCCCATCGAGACCGTGGCCCTGGAAGCTGAAGCCGCGCATTGGACGCGCCCCAAGGTGAACA  | 740   |
| Db | 1781 | CCCCATCGAGACCGTGGCCCTGGAAGCTGAAGCCGCGCATTGGACGCGCCCCAAGGTGAACA  | 1840  |
| QY | 741  | GTGGCCCTGTGACCGAGGAGAAAGATCAAGGCCCTGACCGCCATCTTGCAGAGATGAGAA    | 800   |
| Db | 1841 | GTGGCCCTGTGACCGAGGAGAAAGATCAAGGCCCTTGTGTGAGATCTGACCGAGATGAGAA   | 1900  |
| QY | 801  | GAGGGCAAGATCACCAAGATCGGCCCGCGAGAACCCCTTACAACACCCCGTGTGCGCAT     | 860   |
| Db | 1901 | GAGGGCAAGATCACCAAGATCGGCCCGCGAGAACCCCTTACAACACCCCGTGTGCGCAT     | 1960  |
| QY | 861  | CAAGAAAGAGACACGACCACTAGTGGCGCAAGCTGTGACCTTCCCGAGCTGAACAAACG     | 920   |
| Db | 1961 | CAAGAAAGAGACACGACCACTAGTGGCGCAAGCTGTGACCTTCCCGAGCTGAACAAACG     | 2020  |
| QY | 921  | CACCCAGGACTTCTGAGAGGTGCAGCTGGGCAATCCCCACCCCGCGCGCTGAAGAGAA      | 980   |
| Db | 2021 | CACCCAGGACTTCTGAGAGGTGCAGCTGGGCAATCCCCACCCCGCGCGCTGAAGAGAA      | 2080  |
| QY | 981  | GAAAGACGTGACCGTGTGAGAGTGGGCGACGCTTACTTACGCGTGCCTGTGACGAGGA      | 1040  |
| Db | 2081 | GAAAGACGTGACCGTGTGAGAGTGGGCGACGCTTACTTACGCGTGCCTGTGACGAGGA      | 2140  |
| QY | 1041 | CTTCCGCAAGTACACCGCTTCAACATCCCAAGCATCAACACGAGACCCCGGCATCCG       | 1100  |
| Db | 2141 | CTTCCGCAAGTACACCGCTTCAACATCCCAAGCATCAACACGAGACCCCGGCATCCG       | 2200  |
| QY | 1101 | CTAACCAATACAAACGTGTGCGCCCAAGGGCTGGAAGGGCGAGCCCAAGCATCTTCCAGAGAG | 1160  |
| Db | 2201 | CTAACCAATACAAACGTGTGCGCCCAAGGGCTGGAAGGGCGAGCCCGCATCTTCCAGAGAG   | 2260  |
| QY | 1161 | CATGACCAAGATCTGTGAGACCTTCCGCGCCCGCAACCCCGAGATCGTATCTACCA---     | 1217  |
| Db | 2261 | CATGACCAAGATCTGTGAGACCTTCCGCAAGAGAACCCCGACATCGTATCTACCACTA      | 2320  |
| QY | 1218 | ---GGCCCCCTGTATCGTGGCGAGCGACTTGAAGATCGGCACGACGCGGCCAAGATCGA     | 1274  |
| Db | 2321 | CATGACCAACCTGTATCGTGGCGAGCGACTTGAAGATCGGCACGACCGCCACCAAGATCGA   | 2380  |
| QY | 1275 | GGAAGTGGGCAAGACACCTGTGCGGTGGGGGCTTCAACACCCCGCAAGAAAGACCAAGAA    | 1333  |
| Db | 2381 | GGAAGTGGGCGACACCTGTGCGGTGGGGGCTTCAACACCCCGCAAGAAAGACCAAGAA      | 2440  |
| QY | 1335 | GGAAGCCCCCTTCTGTGTGATGGGCTTACGAGCTGACCCCGACAGTGGACCGTGCACCC     | 1399  |
| Db | 2441 | GGAAGCCCCCTTCTGTGTGATGGGCTTACGAGCTGACCCCGACAGTGGACCGTGCACCC     | 2500  |
| QY | 1395 | CATGAGCTGCCCGAGAAAGAGAGCTGACACGTGAACGACATCCAGAACTGTGGGCA        | 1455  |
| Db | 2501 | CATCATGTCTGCCGAGAAAGACAGCTGACCGTGAACGACATCCAGAACTGTGTGGGCA      | 2560  |
| QY | 1455 | GCTGAACTGTGGGCGACGACATATACCCCGGCA TCAAGTGGCGCAGCTGTGTCAAGCTGCT  | 1511  |

|    |      |                                                                   |      |
|----|------|-------------------------------------------------------------------|------|
| Db | 2561 | GCTGAACCTGGGCCAGCCAGATCTTCGCCCGGCATCAAGGTGAAGCAGCTGTCCAAAGCTGCT   | 2620 |
| QY | 1515 | GGCGGGCGCCCAAGGCCCTCTGACCCGACATCTGTGGCCCTTACCGAAGGAGCCGAGCTGGAGCT | 1574 |
| Db | 2621 | GGCGGGGACCAAGGCCCTCTGACCCGAGTGTATCCCCCTGACCGAAGGAGGCCGAGCTGGAGCT  | 2680 |
| QY | 1575 | GGCCGAGAACCCGACGATCTCTGCCGAGCCCGTGCACAGCCCTGTACTACGACCCCGACA      | 1634 |
| Db | 2681 | GGCCGAGAACCCGAGATCTCTGAAGAGGCCCGTGACAAGAGTGTACTACGACCCCGACA       | 2740 |
| QY | 1635 | GGACCTGTGTGGCCGAGATCCGAAACGAGGGCCACGACCATGTGACCTTACGAGTCTACCA     | 1694 |
| Db | 2741 | GGACCTGTGTGGCCGAGATCCGAAAGCAGGGGCCAGGGCCAGTGTGACCTTACGAGTCTACCA   | 2800 |
| QY | 1695 | GGAGCCCTTCAAGAACCTGAGACCCGGCAATGACGCCAAAGATGTGGGCACCGGCCACACCA    | 1754 |
| Db | 2801 | GGAGCCCTTCAAGAACCTGAAAGACCCGGCAATGACGCCCGATGTGGGCCGCCACACCA       | 2866 |
| QY | 1755 | CGAGGTGAGCAGCTGACCGAGGCCGTGTGACAGAGATCGCCATGTGAGACATCTGTACTTG     | 1814 |
| Db | 2861 | CGAGGTGAGCAGCTGACCGAGGCCGTGTGACAGAGATGTGAGACATCTGTACTTG           | 2920 |
| QY | 1815 | GGGCGAAGACCCCCCAAGTTCCGCGCTGGCCCATCCAGAGAGACCTTGGGAGACCTGTGTGAC   | 1874 |
| Db | 2921 | GGGCGAAGATCCCCCAAGTTCAAGCTGCCCATCCAGAGAGACCTTGGGAGGCTGTGTGAT      | 2980 |
| QY | 1875 | CGACTACTGTGAGGCGCACCTGGATCCCCGAGTGGGAGTTCTGTGACACCCGCCCTGTGT      | 1934 |
| Db | 2981 | CGAGTACTGTGAGGCGCACCTGGATCCCCGAGTGGGAGTTCTGTGACACCCGCCCTGTGT      | 3040 |
| QY | 1935 | GAACTGTGTGTACCACTGAGAGAAAGAGCCCATCATCGGCGCCGACCTTCTACGTGTGA       | 1994 |
| Db | 3041 | GAACTGTGTGTACCACTGAGAGAAAGAGCCCATGTGTGGCGCCGACCTTCTACGTGTGA       | 3100 |
| QY | 1995 | CGGCGCGGCCCAACCGCGAGACCAAGATCTGGGAAAGCCGCGCTTACGTGACCGACCGGGGCG   | 2054 |
| Db | 3101 | CGGCGCGGCCCAACCGCGAGACCAAGCTGGGAAAGCCGCGCTTACGTGACCGACCGGGGCG     | 3166 |
| QY | 2055 | GCAGAGATCGTGAAGCTGACCGAGACCAACCAACGAGAGACCGAGCTGCAGGCCATCCA       | 2114 |
| Db | 3161 | CGAAGAGTGTGTGAGCATCGCCGACACCAACCAACGAGAGACCGAGCTGCAGGCCATCCA      | 3222 |
| QY | 2115 | GCTGGCCCTTGAGGACAGCGGCAGCGAGGTGAACATCTGTGACCGACGCCAGTACGCTCT      | 2174 |
| Db | 3221 | CCTGGCCCTTGAGGACAGCGGCCTTGAGAGTGAACATCTGTGACCGACGCCAGTACGCTCT     | 3280 |
| QY | 2175 | GGGCACTATCCAGAGCCCAAGCCCGACAGAGGAGAGCGAGTGTGAAACCAAGTATCATGGA     | 2234 |
| Db | 3281 | GGGCACTATCCAGAGCCCAAGCCCGACAGAGGAGAGCGAGTGTGAAACCAAGTATCATGGA     | 3340 |
| QY | 2235 | GCAGCTGTCAAGAGAGAGAGTGTACTTGAAGCTGTGGTGGCCCGCCCAAGAGGCATCGG       | 2294 |
| Db | 3341 | GCAGCTGTCAAGAGAGAGAGTGTACTTGAAGCTGTGGTGGCCCGCCCAAGAGGCATCGG       | 3400 |
| QY | 2295 | CGGCAACGAGCATCGACAAAGCTGTGTAGCAAGGCATCTCGCAAGTGTCTTCTGTGA         | 2354 |
| Db | 3401 | CGGCAACGAGCATGTGTGACAAAGCTGTGTAGAGCGCGGCATCTCGCAAGTGTCTTCTGAA     | 3466 |
| QY | 2355 | CGGCATCGATGGCGGCATCGTATCTTACGATGA 2387                            |      |
| Db | 3461 | CGGCATCGACAAAGGCCCGAGAGAGACAGAGAA 3493                            |      |

RESULT 5  
 US-09-393-795-12  
 : Sequence 12, Application US/09393795  
 : Patent No. 6958226  
 :  
 : GENERAL INFORMATION:  
 :  
 : APPLICANT: Gray, John T.  
 : APPLICANT: Molligan, Richard C.  
 : TITLE OF INVENTION: Packaging Cell Line  
 : FILE REFERENCE: CACC6935PA

```

CURRENT APPLICATION NUMBER: US/09/393,795
CURRENT FILING DATE: 1999-09-10
PRIOR APPLICATION NUMBER: US 60/100,063
PRIOR FILING DATE: 1998-09-12
PRIOR APPLICATION NUMBER: US 60/100,022
PRIOR FILING DATE: 1998-09-11
NUMBER OF SEQ ID NOS: 12
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 12
LENGTH: 8908
TYPE: DNA
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: Packaging construct pHDmHpm2 comprising a codon
 optimized form of HIV gag pol region
US-09-393-795-12

```

|                       |              |                     |                 |                   |
|-----------------------|--------------|---------------------|-----------------|-------------------|
| Query Match           | 77.5%        | Score 1909;         | DB 3;           | Length 8908;      |
| Best Local Similarity | 88.9%;       | Pred. No. 5.7e-293; |                 |                   |
| Matches 2109;         | Conservative | 0;                  | Mismatches 243; | Indels 19; Gaps 4 |

|    |      |                                                                   |      |
|----|------|-------------------------------------------------------------------|------|
| QY | 35   | CCACACGAGGCGCAATCTCTGATGCAAGGCGACGAACCTTCAAGGGGCGCCCAACGCGATCATCA | 94   |
| Db | 2429 | CCAAACCCCGCCACCATCATGATTCAGAAAGGCGAATTCGCGACACCAAGCGCAACACCTGTA   | 2488 |
| QY | 95   | AGTACTTCACATCGCGCGCAAGAGGGCGCAATTCGCGCGCAACTGCGCGCGCCCGCGCAGA     | 154  |
| Db | 2489 | AGTCTCTCAATGCGGGCAAGGAGGGGCCAATCGCCAGAAACTGCGCGCGCCCGCGCAGA       | 2548 |
| QY | 155  | AGGGCTGCTGGAAGTGCGGCAAGAGGGCGCACCGATGGAAGACTGCAACCGAGCGCCAGG      | 214  |
| Db | 2549 | AGGGCTGCTGGAAGTGCGGCAAGAGGGCGCACCGATGGAAGATTTGATCTGAGAGACAGG      | 2608 |
| QY | 215  | CCAACTTCTTCCGCGAGGACCTGGCGTTCCCCCGAGGCGAAAGCCCGCGAGTTCCCGCAGC     | 274  |
| Db | 2609 | CTAA-TTTTTTAAAGGAGAGATTCGGCTTCCCAAGAGGAGCGCAGGAATTTTCTTCAG        | 2667 |
| QY | 275  | AGCAGAACCGCGCCCAACAGCCCAACGACCGGAGCTGCAGTGCGGG-----CGACA          | 328  |
| Db | 2688 | AGCAGAACGAGAGCCAAACGCCCCACAGAAAGAGACTTCAAGTTTGGGGAAGAGACA         | 2727 |
| QY | 329  | AACCCCGCAGCGAGGCGCGGCGCCCGACGCGCAAGGCA-----CCTGAACTTCCCCAGA       | 382  |
| Db | 2728 | ACTCCCTCTCAGAAAGCAGAGCCCGATAGACAAGAACTGTACTTTAGCTTCCCTCAGA        | 2787 |
| QY | 333  | TCACTCTTGGCAAGGCCCCCTGTGAGACATCAAGTGGGGGGCGACATCAAGAGGCGC         | 442  |
| Db | 2788 | TCACTCTTGGCAAGGACCCCTGTGCAAAATAAAGATCGGGGCGACGTGAAGAGGCGC         | 2847 |
| QY | 443  | TGCTTGAACACGGCGCGCCGACGACACCGTGTGAGAGAGATGAGCTGCCCGGCAGTGA        | 502  |
| Db | 2848 | TGCTTGAACACGGCGCGCCGACGACACCGTGTGAGAGAGATGAACCTGCCCGGCGCTGGA      | 2907 |
| QY | 503  | AGCCCAAGATGATCGGCGCGCATTCGGCGGCTTCATCAAGTGGCGCCGATGACACAGATCC     | 562  |
| Db | 2908 | AGCCCAAGATGATCGGCGCGCATTCGGCGGCTTCATCAAGTGGCGCCGATGACACAGATCC     | 2967 |
| QY | 563  | TGATGGAATCTGCGCGCAAGAAAGCGCATTCGGGACCGGTGATGCGGCGCCACCCCGTGA      | 622  |
| Db | 2968 | TGATGGAATCTGCGCGCGCAAGAAAGCGCATTCGGGACCGGTGATGCGGCGCCACCCCGTGA    | 3027 |
| QY | 623  | ACATCATCGGCGCGCAACATGTGACCCGAGTGGGCTGCAACCTTGATTCCTCCATCAAGC      | 682  |
| Db | 3028 | ACATCATCGGCGCGCAACCTGCTGACCCGAGTGGGCTGCAACCTTGATTCCTCCATCAAGC     | 3087 |
| QY | 683  | CCATGAGACCGTGCCCGCTGAAGCTGAAGCCCGGATGAGAGGCGCCCAAGGTGAAGCAT       | 742  |
| Db | 3088 | CCATGAGACCGTGCCCGCTGAAGCTGAAGCCCGGATGAGAGGCGCCCAAGGTGAAGCAT       | 3147 |
| QY | 743  | GGCCCCCTGACGAGAGGAAGATCAAGGGCGCTGACCGGCATCTGACGAGGAGATGAGAGG      | 802  |
| Db | 3148 | GGCCCCCTGACGAGAGGAAGATCAAGGGCGCTGTGTGAGAGATCTTGACCGAGATGAGAGG     | 3207 |

|    |      |                                                                     |      |
|----|------|---------------------------------------------------------------------|------|
| QY | 803  | AGGCGAAGATCAACAAAGATGAGGCCCGGAGAAACCCCTTACAACACCCCGTGTGCGCATCA      | 862  |
| Db | 3208 | AGGCGAAGATCTCCAAATGAGCCCGGAGAAACCCCTTACAACACCCCGTGTGCGCATCA         | 3267 |
| QY | 863  | AGAAGAAGACAGACCAAGATGAGCGCAAGCTGTGTGACATTCCGCGAGCTTGAACAAACGCA      | 922  |
| Db | 3268 | AGAAGAAGACTCCACCAAGTGGGCGAAAGCTGTGTGACTTCCGCGAGCTTGAACAAACGCA       | 3327 |
| QY | 923  | CCGAGACTTCTGGGAGGTGAGCTGGGCAATCCCCACACCCCGCGGCTTGAAGAAATAAG         | 982  |
| Db | 3328 | CCGAGACTTCTGGGAGGTGAGCTGGGCAATCCCCACACCCCGCGGCTTGAAGAAATAAG         | 3387 |
| QY | 993  | AGAACGTGACCGTGTCTGAGAGTGGGCGAGCGCTTACCTTCAAGCTGTGCCCTTGAAGAGAACT    | 1042 |
| Db | 3388 | AGTCCGTGACCGTGTCTGAGAGTGGGCGAGCGCTTACCTTCCGTGTGCCCTTGAAGAGAACT      | 3447 |
| QY | 1043 | TCCGCAAGTACACCGCTTCAACATCCCCAGACTCAACAAGAACCCCGGAGCTCGCT            | 1102 |
| Db | 3448 | TCGCGAATACACCGCTTCAACATCCCCAGACTCAACAAGAACCCCGGAGCTCGCT             | 3507 |
| QY | 1103 | ACCAATACAGTGTCTGTCCCGAGGCTTGAAGGCGAGCGCCAGACTTTTCAAGACAGCA          | 1162 |
| Db | 3508 | ACCAATACAGTGTCTGTCCCGAGGCTTGAAGGCGAGCGCCAGACTTTTCAAGTGTCCA          | 3567 |
| QY | 1163 | TGACCAAGATTCCTGTGAAGCCCTTCCGCGCCCGCAACCCCGAGATGTGTATCACA-----       | 1217 |
| Db | 3568 | TGACCAAGATTCCTGTGAAGCCCTTCCGCAAGCAAGACCCCGAGATGTGTATCAACATCA        | 3627 |
| QY | 1218 | -GGCCCCCTGTAGTGTGTGGAGAGCACTGTGAGATGTGCGAGCAACCGCGCCAAATGTGAGG      | 1276 |
| Db | 3628 | TGAGACAGACTTATGTGTGGCTCCGACCTGTGAGATGTGCGAGCAACCGCAAGATGTGAGG       | 3687 |
| QY | 1277 | AGCTGCGAGACACTGTGTGCTGTGGGCTTACACACCCCGAGACAAAGCA                   | 1336 |
| Db | 3688 | AGCTGCGACACACTGTGTGCTGTGGGCTTACACACCCCGAGACAAAGCA                   | 3747 |
| QY | 1337 | AGCCCCCTTCTGTGTGATGTGGGCTTACAGAGCTGTGACCCCGACAAAGTGAACCGTGTGAGCCCA  | 1396 |
| Db | 3748 | AGCCCCCTTCTGTGTGATGTGGGCTTACAGAGCTGTGACCCCGACAAAGTGAACCGTGTGAGCCCA  | 3807 |
| QY | 1397 | TGCAAGTGTCCCGAGAGAGAGAGCTGTGACCCGTGAACGACATCCAGAACCTGTGTGGGCAAGC    | 1456 |
| Db | 3808 | TGTGTCTGTCCGAGAGAGAGCTGTGTGACCCGTGAACGACATCCAGAACCTGTGTGGGCAAGC     | 3867 |
| QY | 1457 | TGAATGTGGGCGAGCCAGATCTTACCCCGGACATCAAGGTGTGTGCGCAGCTGTGTGCACTGTGC   | 1516 |
| Db | 3868 | TGAATGTGGGCTTCCAGATCTTACCGCGGACATCAAGTGTGTGCGCAGCTGTGTGCACTGTGC     | 3927 |
| QY | 1517 | GCGGCGCCAAAGGCTTGTACCCGACATCTGTCCCCCTGTACCGAGAGAGGCGAGGTGTGAGGCTGTG | 1576 |
| Db | 3928 | GCGGCGCCAAAGGCTTGTACCCGAGGTGTGTCCCTGTACCGAGAGAGGCGAGGTGTGAGGCTGTG   | 3987 |
| QY | 1577 | CCGAGAACCGGAGAGTCTGTGCGCGAGGCGCGGTGTGTACTTACGACCCCGAGCAAGG          | 1636 |
| Db | 3988 | CCGAGAACCGGAGAGTCTGTGAAGAGGCCCGGTGTGTACTTACGACCCCGCTTCAAGG          | 4047 |
| QY | 1637 | ACCTGTGTGCGCGAGATCCAGAGAGGAGGCGACCAAGTGTGACCTTACAGATCTTACCAAG       | 1696 |
| Db | 4048 | ACCTGTGTGCGCGAGATCCAGAGAGGAGGCGCGAGTGTGTACTTACAGATCTTACCAAGG        | 4107 |
| QY | 1697 | AGCCTTCAAGAACTGTGAAGACCCGCGCAAGTATCCGCAAGATGCGCACCGCCCGACCAACAG     | 1756 |
| Db | 4108 | AGCCTTCAAGAACTGTGAAGACCCGCGCAAAATGTGCGCATTAAGGCGCCCGACCAACAGG       | 4167 |
| QY | 1757 | ACGTGAAGAGCTGTGACCGAGGCGGTGTGAGAAAGATGTGCATGTGAGAGCATCTGTATCTTGGG   | 1816 |
| Db | 4168 | ACGTGAAGAGCTGTGACCGAGGCGGTGTGAGAAAGATGTGCCACGAGTGCATCTGTATCTTGGG    | 4227 |
| QY | 1817 | GCAAGACCCCGCAAGTTCCGCGCTGTCCCATCCAGAGAGAGACTTGGGAGACTGTGTGTGACCG    | 1876 |
| Db | 4228 | GCAAGACTTCCCAAGTTCAAGCTGTCCCATCCAGAGAGAGACTTGGGAGGCGCTGTGTGTGACCG   | 4287 |
| QY | 1877 | ACTACTGTGAGGCGCACTGTGAATCTCCCGAGTGTGAAGTTGTGTAAACACCCCGCGGTGTGA     | 1936 |

Db 4288 AGTACTGCGACGCACTGGATCCCGAGTGAGTTGTGAACACCCCCCTGGTGA 4347  
Qy 1337 AGCTGTGTACAGCTGGAGAGAGCCCATCTGGGCGCGAGACCTTTCAAGTGAAG 1996  
Db 4348 AGCTGTGTACAGCTGGAGAGAGAGCCCATCTGGGCGCGAGACCTTTCAAGTGAAG 4407  
Qy 1997 GCGCGCGCAACCGCGAGAGACCAAGATCGGCAAGGCGGCTAGTGAACCGAGCGGCGG 2056  
Db 4408 GCGCGCGCAACCGCGAGAGACCAAGATCGGCAAGGCGGCTAGTGAACCGAGCGGCGG 4467  
Qy 2057 AGAAGATGTGAGCTTGAACCGAGACCAACCGAGAGACCGAGCTGGAGGCTATCCAGC 2116  
Db 4468 AGAAGATGTGAGCTTGAACCGAGACCAACCGAGAGACCGAGCTGGAGGCTATCCAGC 4527  
Qy 2117 TGCGCTGTGACAGACGAGCGGAGCGGAGTGAACATGTGACCGAGCGGAGTACCGCTG 2176  
Db 4528 TGCGCTGTGACAGACGAGCGGAGCGGAGTGAACATGTGACCGAGCTGATGATTTG 4587  
Qy 2177 GCATCATTCAGGCGCGAGCGGAGCAAGAGCGAGCGAGCTGTGACCAAGATCATTCAGC 2236  
Db 4588 GCATCATTCAGGCGCGAGCGGAGCAAGATCATTCAGCTGTGATCCAGATCATTCAGC 4647  
Qy 2237 AGCTGATCAAGAGAGAGAGTGTACTGTAGCTGGGTGCGCGCCACAAAGGCGCATCGGCG 2236  
Db 4648 AGCTGATCAAGAGAGAGAGTGTACTGTAGCTGGGTGCGCGCCACAAAGGCGCATCGGCG 4707  
Qy 2297 GCAACGAGCAGATGACAGAGCTGTGAGAGAGGCGATCCGAGAGTGTGTTCTCGAGCG 2356  
Db 4708 GCAACGAGCAGATGACAGAGCTGTGAGAGTGTGCGCGGATCCGAGAGTGTGTTCTCGAGCG 4767  
Qy 2357 GCATCGATGCGCGCATCGTGTACTGACAGTA 2387  
Db 4768 GCATCGACAAAGCGCCAGAGAGAGACAGAA 4798

RESULT 6  
US-09-475-515-80  
Sequence 80, Application US/09475515A  
Patent No. 6602705  
GENERAL INFORMATION:  
APPLICANT: BARNETT, Susan  
APPLICANT: ZUR MEGEDE, Jan  
APPLICANT: SRIVASTAVA, Indresh  
APPLICANT: LIAN, Yang  
APPLICANT: HARROG, Karin  
APPLICANT: LIU, Hong  
APPLICANT: GREER, Catherine  
APPLICANT: SELBY, Mark  
APPLICANT: WALKER, Christopher  
TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION  
FILE REFERENCE: 1621.002  
CURRENT APPLICATION NUMBER: US/09/475,515A  
NUMBER OF SEQ ID NOS: 90  
SOFTWARE: Patent In Ver. 2.0  
SEQ ID NO 80  
LENGTH: 2305  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURES:  
OTHER INFORMATION: Description of Artificial Sequence:  
OTHER INFORMATION: FS(+).protnact.RTopt.YM  
US-09-475-515-80

Query Match 76.3%; Score 1878.8; DB 3; Length 2305;  
Best Local Similarity 89.4%; Pred. No. 3.1e-288;  
Matches 2061; Conservative 0; Mismatches 232; Indels 13; Gaps 3;  
Qy 170 GCGGCAAGAGAGGCGCACCAATGAAGAGCTGACCGAGCGCGCAACTTTCTTCCGCG 229  
Db 1 GCGGCGCGAGAGACCAATGAAGATTCACCTGAGAGACAGGCTAATTTT-AGGG 59

Qy 230 AGAAGCTGAGCTTCCCGAGGCAAGGCGCGAGATTCCCGAGAGAGAAACCGCGCA 289  
Db 60 AAGATCTGGCTTCTCAAGAGAGAGCGAGGAATTTCTTCAGAGAGACAGAGCGCA 119  
Qy 290 ACAGCCCAACCGCGAGCTGCAAGTGGCGGCG-----ACAGCCCGCGAGCGAG 343  
Db 120 ACAGCCCAACCGAGAGAGCTTCAAGTGGGAGAGAGAAACAGCTTCTCAGAGAG 179  
Qy 344 CCGGCGCGAGCGCGAGGCA-----CCCGAAGCTTCCCGAGATCAAGCTGTGGAGC 397  
Db 180 CAGAGCGGATAGACAGAGAACTGTATCTTTAATCTTCTCAAGTCACTTTGGCAAC 239  
Qy 398 GCCCTGTGTAGCATCAAGGTGGCGGCGCAGATCAAGAGAGCCCTGTGACACCGCG 457  
Db 240 GACCTCTGTCAAAATTAAGATGGGGGGGCACTCAAGAGAGCCCTGTGATCAGAGAG 299  
Qy 458 CCGAGCAACCGTCTGAGAGAGATGAGCTGCGCGCAAGTGAAGCCCAAGTATGTCG 517  
Db 300 CAGATGATACAGTATTAGAGAAATTAATTTGCGAGAGAAATGAGAAACCAAAATGATAG 359  
Qy 518 GCGGCATCGGCGCTTATCAAGGTGGCGCGAGTACGAGACAGATCTGTATCGAGATCGG 577  
Db 360 GGGGATCGGGGCTTCAATCAAGGTGAGCGAGTACGAGACAGATACCTGTAGAAATCTGTG 419  
Qy 578 GCAAGAGGCGCATCGGACCGTGTGATCGGCGCGACCGCGTGAACATCATCGGCGCA 637  
Db 420 GACATTAAGCATATGATAGATATTAGTGAAGACCTTACACCTGTCAACATATTGAGAGAA 479  
Qy 638 ACATGTGACCGAGCTGGCTGACACCTTGAACCTTCCCATAGCCCATCGAGACCGTGC 697  
Db 480 ATCTGTGACCGAGATCGGCTGACCTTGAACCTTCCCATAGCCCATATGAGACCGTGC 539  
Qy 698 CCGTGAAGCTGAAGCGCGGAGATGAGCGGCGCGCAAGAGTGAAGTGGCGCTGACCGAGG 757  
Db 540 CCGTGAAGTGAAGCGCGGAGATGAGCGGCGCGCGCAAGAGTGAAGTGGCATTTGACCGAGG 599  
Qy 758 AGAAGATCAAGGCGCGCATCGGCGCGAGAGATGAGAGAGAGAGAGATCAACCA 817  
Db 600 AGAAGATCAAGGCGCGCATCGGCGCGAGATGAGAGAGAGAGAGATCAACCA 659  
Qy 818 AGATCGCGCGCGAGAGACCGCTTCAACACCGCGTGTGCGCATCAAGAGAGAGAGAGCA 877  
Db 660 AGATCGCGCGCGAGAGACCGCTTCAACACCGCGTGTGCGCATCAAGAGAGAGAGAGCA 719  
Qy 878 CCAAGTGGCGAGCTGTGAGCTTCCGCGAGCTGAACAAGCGGACCGAGGACTTCTGGG 937  
Db 720 CCAAGTGGCGAGCTGTGAGCTTCCGCGAGCTGAACAAGCGGACCGAGGACTTCTGGG 779  
Qy 938 AGGTGAGCTGGGCGATCCCGACCGCGCGCGCTGAAGAGAGAGAGCGTGAACCGTGC 997  
Db 780 AGGTGAGCTGGGCGATCCCGACCGCGCGCGCTGAAGAGAGAGAGAGAGAGCGTGAACCGTGC 839  
Qy 998 TGAAGTGGGCGAGCGCTTCAAGCTGTGCGCTGAGAGAGAGCTTCCGCAAGTACACCG 1057  
Db 840 TGAAGTGGGCGAGCGCTTCAAGCTGTGCGCTGAGAGAGAGCTTCCGCAAGTACACCG 899  
Qy 1058 CTTTCAAGATCCCGAGATCAACAGAGAGCGCGGAGTCCGTACCAAGTACAGAGTGC 1117  
Db 900 CTTTCAAGATCCCGAGATCAACAGAGAGCGCGGAGTCCGTACCAAGTACAGAGTGC 959  
Qy 1118 TGCCCCAGGCTGAGAGGCGAGCGCGAGCATCTTCAAGAGAGAGATCAACAGATCTCTG 1177  
Db 960 TGCCCCAGGCTGAGAGGCGAGCGCGAGCATCTTCAAGAGAGAGATCAACAGATCTCTG 1019  
Qy 1178 AGCCCTTCCGCGCGCGAGACCGCGAGATCGTATCTACAGAGCGCCCTGTAGTGGCA 1237  
Db 1020 AGCCCTTCCGCGAGAGACCGCGAGATCGTATCTACAGAGCGCCCTGTAGTGGCA 1079  
Qy 1238 GCGAGCTGTGAGATGGCGAGAGACCGCGCGAGATCGAGAGAGCTTCCGCAAGTCTGCTGC 1297  
Db 1080 GCGAGCTGTGAGATGGCGAGAGACCGCGCGAGATCGAGAGAGCTTCCGCAAGTCTGCTGC 1139



|    |      |                                                                     |      |
|----|------|---------------------------------------------------------------------|------|
| Qy | 1298 | GCATGGGGCTTCAACACCCCCGACAAAGAAAGACAAAGAAAGAGGCCCTTCTGTGGATGG        | 1357 |
| Db | 1140 | GCTGGGGCTTACACACCCCCGACAAAGAAAGACAAAGAAAGAGGCCCTTCTGTGGATGG         | 1199 |
| Qy | 1358 | GCTAACGAGCTGCAACCCCGACAAAGTGAACCTGTGAGGCCATCGAGCTGCCGAAAGAGA        | 1417 |
| Db | 1200 | GCTAACGAGCTGCAACCCCGACAAAGTGAACCTGTGAGGCCATCATGTCTGCCGAAAGAGA       | 1259 |
| Qy | 1418 | GCTGGAACCTGTGAACGACATTCAGAAAGCTGTGGCAAGCTGAACCTGGGCAAGCAATCT        | 1477 |
| Db | 1260 | GCTGGAACCTGTGAACGACATTCAGAAAGCTGTGGCAAGCTGAACCTGGGCAAGCAATCT        | 1319 |
| Qy | 1478 | ACCCCGGACATCAAGAGTGCACAGCTGTGCAAGCTGTGGGCGGCGGCAAGGCCCTGACCG        | 1537 |
| Db | 1320 | ACCGCGGACATCAAGAGTGAAGAGCTGTGCAAGCTGTGGGCGGCGGCAAGGCCCTGACCG        | 1379 |
| Qy | 1538 | ACATCTGAGCCCTTGACACGAGAGAGGCCACAGCTGAGCTGGCCGAGAACCCGAGATCTTGC      | 1597 |
| Db | 1380 | AGGTGATCTCCCTTGACCGAGAGAGGCCACAGCTGAGCTGGCCGAGAACCCGAGATCTTGC       | 1439 |
| Qy | 1598 | GCGAGCCCTGTGCAAGGCGGTGTAATTACGACCCCGAGCAAGAACCTGTGTGGCCGAGATCCGA    | 1657 |
| Db | 1440 | AGGAGCCCTGTGCAAGAGGTGTAATTACGACCCCGAGCAAGAACCTGTGTGGCCGAGATCCGA     | 1499 |
| Qy | 1658 | AGCAGGGCCACAGACCAATGAGACCTTACCAAGATCTTACGAGAGCCCTTCAAGAACCTTGAGA    | 1717 |
| Db | 1500 | AGCAGGGCCAGAGGCCAAGTGAACCTTACCAAGATCTTACGAGAGCCCTTCAAGAACCTTGAGA    | 1559 |
| Qy | 1718 | CCGCAAGTACGCGCAAGATGCGCACCGGCCACACCAAGACGTTGAAACCACTTGACCGAGG       | 1777 |
| Db | 1560 | CCGCAAGTACGCGCGCATGCGCGCGGCCACACCAAGACGTTGAAACCACTTGACCGAGG         | 1619 |
| Qy | 1778 | CCGTGCAAGAAAGTCCGCAATGAGAGCAATCGTGAATCTTGGGCGAAGACCCCAAGTTCGGCC     | 1837 |
| Db | 1620 | CCGTGCAAGAAAGTGAAGACCGAGAGCAATCGTGAATCTTGGGCGCAAGATCCCAAGTTCAGCG    | 1679 |
| Qy | 1838 | TGCCCCATTCAGAAAGAGACCTTGGAGAGACCTGTGTGGAACCGACTATTTGGCAAGGCCACCTGGA | 1897 |
| Db | 1680 | TGCCCATTCAGAAAGAGACCTTGGAGAGGCTGTGTGAATGGAATCTTGGCAAGGCCACCTGGA     | 1739 |
| Qy | 1898 | TCCCCGAGTGGGAGGTTGCTGTAACACCCCCCTCTGTGGAAGCTGTGGTACCAAGCTGAGAGA     | 1957 |
| Db | 1740 | TCCCCGAGTGGGAGGTTGCTGTAACACCCCCCTCTGTGGAAGCTGTGGTACCAAGCTGAGAGA     | 1799 |
| Qy | 1958 | AGAGAGCCCATCATCGGCGCCGAGAACCTTCTTACGTGAAACGCGCGCCGACCCGCGAGAACCA    | 2017 |
| Db | 1800 | AGAGAGCCCATGTGTGGCGCCGAGAACCTTCTTACGTGAAACGCGCGCCGACCCGCGAGAACCA    | 1859 |
| Qy | 2018 | AGATCGGCAAGGCGCGCTTACGTGACCCGACCGGGGCGCGGACAAAGATCGTGAGCCTTGACCG    | 2077 |
| Db | 1860 | AGCTGGGCAAGGCGCGCTTACGTGACCCGACCGGGGCGCGGACAAAGTGTGTGACATCGCCG      | 1919 |
| Qy | 2078 | AGACCAACCAACGAAAGAACCGAGCTGAGGGGCAATCAGCTGGGCCCTGACAGGACGCGGCA      | 2137 |
| Db | 1920 | ACATCCACCAACGAAAGAACCGAGCTGAGGGGCAATCAGCTGGGCCCTGACAGGACGCGCC       | 1979 |
| Qy | 2138 | GCGAGGTGAACATCGTGAACCGGACAGCCAGTACGCGCTTGGGGCATATCCAGGCCCGACGCCG    | 2197 |
| Db | 1980 | TGGAGGTGAACATCGTGAACCGGACAGCCAGTACGCGCTTGGGGCATATCCAGGCCCGACGCCG    | 2039 |
| Qy | 2198 | ACAAAGCGAGAGCGAGCTGTGAAACCAAGATCATGACAGCTGTATCAAGAAAGAAAGG          | 2257 |
| Db | 2040 | ACAAAGCGAGAGCGAGCTGTGAAACCAAGATCATGACAGCTGTATCAAGAAAGAAAGG          | 2099 |
| Qy | 2258 | TGTACTGTAGCTGTGGTGCCTGGCCCAAGGGGATATGGGGGGACAGAGAGATTCGACAAGC       | 2317 |
| Db | 2100 | TGTACTGTGCTGTGGTGCCTGGCCCAAGGGGATATGGGGGGACAGAGAGGTGTGACAAGC        | 2159 |
| Qy | 2318 | TGTGTGACAAAGGACATCCGCAAGGTGTCTGTTCTTGACCGGCAATCGATGGCGGACATCGTGA    | 2377 |
| Db | 2160 | TGTGTGACCGCGGCAATCCGCAAGGTGTCTGTTCTTGACCGGCAATCGATGGCGGACATCGTGA    | 2219 |
| Qy | 2378 | TCCTACAGTACATGGAACGACTGTACGTGTGGGACGCGCGCCCTTAAAGATTCATTTAAAGC      | 2437 |

|    |      |                                                        |      |
|----|------|--------------------------------------------------------|------|
| Db | 2220 | TTCCAGAGTACATGAGACCTGTACGTGGCCAGCGCGCCCTAGATTCATTAAAGC | 2279 |
| QY | 2438 | TTCCCGGGGCGTAGCACCGGTGATTC                             | 2463 |
| Db | 2280 | TTCCCGGGGCGTAGCACCGGTGATTC                             | 2305 |

RESULT 7

|                                                                            |  |
|----------------------------------------------------------------------------|--|
| US-09-475-515-81                                                           |  |
| Sequence 81, Application US/09475515A                                      |  |
| Patent No. 6602705                                                         |  |
| GENERAL INFORMATION:                                                       |  |
| APPLICANT: BARNETT, Susan                                                  |  |
| APPLICANT: ZUR MEGEDE, Jan                                                 |  |
| APPLICANT: SRIVASTAVA, Indresh                                             |  |
| APPLICANT: LIAN, Ying                                                      |  |
| APPLICANT: HARTOG, Karin                                                   |  |
| APPLICANT: LIU, Hong                                                       |  |
| APPLICANT: GREER, Catherine                                                |  |
| APPLICANT: SELBY, Mark                                                     |  |
| APPLICANT: WALKER, Christopher                                             |  |
| TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION |  |
| TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES                                |  |
| FILE REFERENCE: 1621.002                                                   |  |
| CURRENT FILING DATE: 1999-12-30                                            |  |
| NUMBER OF SEQ ID NOS: 90                                                   |  |
| SOFTWARE: PatentIn Ver. 2.0                                                |  |
| SEQ ID NO 81                                                               |  |
| LENGTH: 2239                                                               |  |
| TYPE: DNA                                                                  |  |
| ORGANISM: Artificial Sequence                                              |  |
| FEATURE:                                                                   |  |
| OTHER INFORMATION: Description of Artificial Sequence:                     |  |
| OTHER INFORMATION: FS(+).prolnact.RTopt.YMMM                               |  |
| US-09-475-515-81                                                           |  |

|                       |              |                     |                 |                   |
|-----------------------|--------------|---------------------|-----------------|-------------------|
| Query Match           | 75.2%        | Score 1852;         | DB 3;           | Length 2299;      |
| Best Local Similarity | 89.0%        | Pred. No. 5.3e-284; |                 |                   |
| Matches 2052;         | Conservative | 0;                  | Mismatches 235; | Indels 19; Gaps 4 |

|    |     |                                                               |     |
|----|-----|---------------------------------------------------------------|-----|
| QY | 170 | GGCGCAAGAGGGGCCACCAAGATGAAGACTGACACCGAGCGCCAGGCCAATTCTTCCGCG  | 229 |
| Db | 1   | GGCGCGCGAAGAGACACCAATGAAGATGCACTGAGAGACAGGCTAATTTT-AGGG       | 59  |
| QY | 230 | AGGACCTGGCTTTCCTCCCAAGGGCAAGCCCGGAGTTCCCAAGCGAGCAAGAACCGCGCA  | 289 |
| Db | 60  | AAGATCTGGCTTCTCTACAAAGGGAAGGCCAGGGAATTTTCTTCAGAGCAGACCAAGGCCA | 119 |
| QY | 290 | AAGCGCCCAACGAGCGCGGAGCTGCAAGTCCGGGG-----ACAACCCCGCAGGAGG      | 343 |
| Db | 120 | ACAGCGCCCAACGAGGAGAGGCTTCAGGTTTGAGGAGAGAAAAACAATCCCTCTCAAGAG  | 179 |
| QY | 344 | CGGGGCGCGAGGCCAGGGCA-----CCCTGAATCTCCCGAGATCACTCTGTGGCAGC     | 397 |
| Db | 180 | CAGGAGCGATGACAAAGGAACTGATCTTTAACTTCCCTCAGATCACTCTTGGCAAC      | 239 |
| QY | 398 | GGCCCTGTGACATCAAGTGTGGCGGCCAGATCAAGGAGGCCCTGTGCAACCGCGG       | 457 |
| Db | 240 | GACCCCTCTCAANTAAAGATCGGGGGCACTCAAGGAAGGGCTGCTGATACAGAG        | 299 |
| QY | 458 | CCGACGACACCGTGTGAGAGAGATGAGCTTCCCGGCAAGTGGAAAGCCCAAGATGATG    | 517 |
| Db | 300 | CAGATGATCAAGTATTAGAAAGAAATTTGCCAGGAAAAATGGAAACCAAAAATGATAG    | 359 |
| QY | 518 | GGGGCATCGGGGCTTCATCAAGGTGCGCCAGTAGACACAGATCTCGATCGATCTGGG     | 577 |
| Db | 360 | GGGGATTCGGGGCTTCATCAAGGTGAGGCAATGACCAAGTACCTGTAGAAATCTGG      | 419 |
| QY | 578 | GCAAGAGGCATTCGGCACCGTGTGATCGGCCCAACCCCGTGAACATCATCGCCGCA      | 637 |
| Db | 420 | GACATTAAGCTAATAGGTACAGTATTGTAAGCACTTCACTGTCAACATTAATGGAAAGA   | 479 |





ORGANISM: Artificial Sequence  
 FEATURE:  
 OTHER INFORMATION: Codon optimized form of HIV pol coding region  
 FEATURE:  
 NAME/KEY: CDS  
 LOCATION: (1)...(3012)  
 us-09-393-795-10

Query Match 72.6%; Score 1788.8; DB 3; Length 3012;  
 Best Local Similarity 89.7%; Pred. No. 5.1e-274;  
 Matches 1961; Conservative 0; Mismatches 207; Indels 18; Gaps 3;

QY 220 TTTCTCCGAGAGACTTGACCTTCCCAAGGCGAAGGCCCGAGTTCCTCCAGGAGCAG 279  
 DB 1 TTTTAAAGGAAAGATCTGAGCTTCCCAAGGAGGCGAGGAAATTTCTTCAAGCAG 60  
 QY 280 AACCGCGCAAGCGCCCAAGCGCGGAGCTGAGGTGCGCG-----CGACAACCC 333  
 DB 61 ACCAAGGCGAAGCGCCCAAGAGAGAGCTTCAAGTTTGAGGAAAGAGACAACAATCC 120  
 QY 334 CGCAGCAGAGCGCGCGAGCGCGAGGCA-----CCCTGAACCTTCCCGAGATCAAC 387  
 DB 121 CTCTAAGAAAGCAGAGCGGATGAGAAAGAACTGATCTTTAGCTTCCCTGAGATCACT 180  
 QY 388 CTGTGGCAGCGCCCTGTGTGAGCATCAAGTGGCGCGCAGATCAAGAGGCCCTGTG 447  
 DB 181 CTTTGGCAGCGACCTCTGTCAATAAAGATCGGTGGCGAGCTGAAGAGGCCCTGTG 240  
 QY 448 GACACCGCGCGGAGAGCAACCTGTCTGAGAGAGAGAGTCCCGGCAAGTGAAGGCC 507  
 DB 241 GACACCGCGCGGAGAGCAACCTGTCTGAGAGAGAGAGTCCCGGCGGCTGAAGGCC 300  
 QY 508 AAGATGATCGGCGGATCGCGGCTTCAATCAAGTGCAGTGCAGTCAAGATCTGTATC 567  
 DB 301 AAGATGATCGGCGGATCGCGGCTTCAATCAAGTGCAGTGCAGTCAAGATCTGTATC 360  
 QY 568 GAGATCTGGGAGAGAGAGGCGATCGGACCGGTGTGATGAGGCCCAACCCCGTGAACATC 627  
 DB 361 GAGATCTGGGAGAGAGAGGCGATCGGACCGGTGTGATGAGGCCCAACCCCGTGAACATC 420  
 QY 628 ATCGCGCGGAGACATGTGACCCAGCTGGGCTGCAACCTTGAACCTTCCCAACGCCCATC 687  
 DB 421 ATCGCGCGGAGACATGTGACCCAGCTGGGCTGCAACCTTGAACCTTCCCAACGCCCATC 480  
 QY 688 GAGACCGTGCCTGTGAAGCTGAAGCCCGGATGAGAGCGGCCCAAGGTGAAGAGAGGCC 747  
 DB 481 GAGACCGTGCCTGTGAAGCTGAAGCCCGGATGAGAGCGGCCCAAGGTGAAGAGAGGCC 540  
 QY 748 CTGACCGAGAGAGAGATCAAGGCGCTGACCGCCATCTGCGAGAGATGAGAGAGAGGCC 807  
 DB 541 CTGACCGAGAGAGAGATCAAGGCGCTGACCGCCATCTGCGAGAGATGAGAGAGAGGCC 600  
 QY 808 AAGATCAACAAGATGCGCCCGAGAACCCCTTACAAACCCCGCTGTCCCATCAAGAG 867  
 DB 601 AAGATCTCAAGATGCGCCCGAGAACCCCTTACAAACCCCGCTGTCCCATCAAGAG 660  
 QY 868 AAGGACAGACCAAGTGGGCGAAGCTGTGAGCTTCCGAGAGTGAACAAGGCGCACG 927  
 DB 661 AAGGACCTCAACCAAGTGGGCGAAGCTGTGAGCTTCCGAGAGTGAACAAGGCGCACG 720  
 QY 928 GACTTCTGGAAGGTGAGCTGGGATCCCGCAACCCCGCGGCTGAAAGAGAGAGAGC 987  
 DB 721 GACTTCTGGAAGGTGAGCTGGGATCCCGCAACCCCGCGGCTGAAAGAGAGAGAGC 780  
 QY 988 GTGACCGTGTGAGAGTGGGCGAGCGCTTACTTAAGGTGGCGCCCTGAGACAGAGCTTCCG 1047  
 DB 781 GTGACCGTGTGAGAGTGGGCGAGCGCTTACTTCCGTGCGCTTGAACAAGAGCTTCCG 840  
 QY 1048 AAGTACACCGCTTCAACATCCCGAGCATCAACAAGAGAGAGAGAGAGAGAGAGAG 1107  
 DB 841 AAGTACACCGCTTCAACATCCCGCTTCAACATCAACAAGAGAGAGAGAGAGAGAGAG 900  
 QY 1108 TACAACTGTGCGCCCAAGGCGTGAAGAGGAGGCCCAAGCATCTTCCAGAGCAGATGACC 1167

DB 901 TACAACGTGCTGCCCGAGGCGTGAAGGCGTCCCGCGCATCTTCCAGTGTCCATGACC 960  
 QY 1168 AAGATCTGAGAGCTTCCCGCGCGCGAAGCCCGAGATCTGATCTACCA-----GGCC 1221  
 DB 961 AAGATCTGAGAGCTTCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1020  
 QY 1222 CCCCTGAACGTGGGCGAGAGCTGAGAGATGAGGCGAGAGAGAGAGAGAGAGAGAGAG 1281  
 DB 1021 GACCTGACGTGGGCGTCCAGCTGAGAGATCGAGAGAGAGAGAGAGAGAGAGAGAGAG 1080  
 QY 1282 CGCAGAGACCTGTGCGCTGGGCGCTTCAACACCCCGGCAAGAGAGAGAGAGAGAGAG 1341  
 DB 1081 CGCAGAGACCTGTGCGCTGGGCGCTTCAACACCCCGGCAAGAGAGAGAGAGAGAGAG 1140  
 QY 1342 CCTTCTGTGAGTGGGCTTCAAGAGTGAACCCCGGCAAGAGAGAGAGAGAGAGAGAG 1401  
 DB 1141 CCTTCTGTGAGTGGGCTTCAAGAGTGAACCCCGGCAAGAGAGAGAGAGAGAGAGAG 1200  
 QY 1402 CTGCGCGAGAGAGAGAGTGAACCGTGAACGATCCAGAGAGAGAGAGAGAGAGAGAG 1461  
 DB 1201 CTGCGCGAGAGAGAGTCTTGAACGATCAAGAGAGAGAGAGAGAGAGAGAGAGAG 1260  
 QY 1462 TGGGCGAGAGATCAACCCCGGATCAAGAGTGCAGCTGTGAGAGCTGTGCGCGCG 1521  
 DB 1261 TGGGCGCTCCAGATCTTACCGCGGATCAAGAGTGCAGCTGTGAGAGCTGTGCGCGCG 1320  
 QY 1522 GCCAAGGCGCTGACCGAGATGTGCGCTGACCGAGAGAGAGAGAGAGAGAGAGAGAG 1581  
 DB 1321 ACCAAGGCGCTGACCGAGAGTGGTGCCTTGAACGAGAGAGAGAGAGAGAGAGAGAG 1380  
 QY 1582 AACCGGAGATCTGAGCGAGAGCGCGTGAACCGCGGTGTCTAGAGAGAGAGAGAGAG 1641  
 DB 1381 AACCGGAGATCTGAGCGAGAGCGCGTGAACCGCGGTGTCTAGAGAGAGAGAGAGAG 1440  
 QY 1642 GTGGCGAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1701  
 DB 1441 ATGCGCGAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1500  
 QY 1702 TTCAAGAACCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1761  
 DB 1501 TTCAAGAACCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1560  
 QY 1762 AAGCAGCTGACCGAGCGCTGTGAAGAGATGCGCAATGAGAGAGAGAGAGAGAGAGAG 1821  
 DB 1561 AAGCAGCTGACCGAGCGCTGTGAAGAGATGCGCAATGAGAGAGAGAGAGAGAGAGAG 1620  
 QY 1822 ACCCCCAAGTTCCGCGTGCCTGCAATCCAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1881  
 DB 1621 ACTCCCAAGTTCAAGTGTGCTCCATCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1680  
 QY 1882 TGGCAGGCGCACTGATATCCCGAGTGGAGTTCTGAGAACACCCCGCTGTGAGAGCTG 1941  
 DB 1681 TGGCAGGCGCACTGATATCCCGAGTGGAGTTCTGAGAACACCCCGCTGTGAGAGCTG 1740  
 QY 1942 TGGTACAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2001  
 DB 1741 TGGTACAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1800  
 QY 2002 GCCAACCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2061  
 DB 1801 GCCAACCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1860  
 QY 2062 ATGAGTGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2121  
 DB 1861 GTGGTGGCTTGAACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1920  
 QY 2122 CTGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2181  
 DB 1921 CTGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980  
 QY 2182 ATCCAGGCGCAGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2241

|    |      |                                                                   |      |
|----|------|-------------------------------------------------------------------|------|
| Db | 1981 | ATCCAGGCGCAGCCCGACAACTCCGAGTCCGAGCTGTGTCCAGATCATGACACAGCTG        | 2040 |
| Qy | 2242 | ATCAAGAAAGAGAAAGTGTACTTGAAGTGGGTGCCCCCGCCACAAGAGGCATCGGCGGCAAC    | 2301 |
| Db | 2041 | ATCAAGAAAGAGAAAGTGTACTTGAAGTGGGTGCCCCCGCCACAAGAGGCATCGGCGGCAAC    | 2100 |
| Qy | 2302 | GAGCAGATTCGACCAAGCTGTGTGAGCAAGGGCATTCGCGCAAGGTGTCTTCTTGGACGGCATC  | 2361 |
| Db | 2101 | GAGCAGGTGTGACCAAGCTGTGTGTGCGCGCGGCATTCGCGCAAGGTGTCTTCTTGGACGGCATC | 2160 |
| Qy | 2362 | GATGCGGCGCATCTGTATCTTACCAAGTA                                     | 2387 |
| Db | 2161 | GACAAAGGCCACGAGAGACACGAGAA                                        | 2186 |

```

RESULT 9
US-09-552-950-2
; Sequence 2, Application US/09552950
; Patent No. 6541248
; GENERAL INFORMATION:
; APPLICANT: Oxford Biomedica (UK) Limited
; TITLE OF INVENTION: Anti-Viral Vectors
; FILE REFERENCE: 674524-2004
; CURRENT APPLICATION NUMBER: US/09/552,950
; CURRENT FILING DATE: 2000-04-20
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
; LENGTH: 4307
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: optimised gagpol sequence
US-09-552-950-2

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|                       |              |                     |                 |              |
|-----------------------|--------------|---------------------|-----------------|--------------|
| Query Match           | 67.1%;       | Score 1651.8;       | DB 3;           | Length 4307; |
| Best Local Similarity | 82.5%;       | Pred. No. 2.3e-252; |                 |              |
| Matches 1939;         | Conservative | 0;                  | Mismatches 391; | Indels 19;   |
|                       |              |                     |                 | Gaps 4;      |

|    |      |                                                                   |      |
|----|------|-------------------------------------------------------------------|------|
| QY | 33   | GGCCACCGAGGCGCAACATCTGTAAGTACAGGCGCAACTTTCAGAGGGGCCCCAGACGGCATCAT | 92   |
| Db | 1110 | GACCAACTCCGGTACATCATATGATGACAGGCGGCAACTTTCGAAACCAACGCAAGATGTT     | 1165 |
| QY | 93   | CAAGTGTCTTCAACTGCGGCAAGAGAGGCGCACATGCGCCGCACTTGCCGCGCCCCCGCA      | 152  |
| Db | 1170 | CAAGTGTCTTCAACTGTGGCAAAAGAGGGCAACAGCCGCGCACTGCAAGGCGCCCTTAGGA     | 1222 |
| QY | 153  | GAAGGGCTGCTGGAAAGTGGCGGCAGAGAGGGCCACCAAGTGAAGAATTGACCCGAGCGCA     | 212  |
| Db | 1230 | AAAGGGCTGCTGGAAATGGCGGCAGAGAGGGCCACCAAGTGAAGAATTGACCGAGAGCA       | 1285 |
| QY | 213  | GGCCNACTTCTTCGCGAGAGCACTTGCGCTTCCGCCAGGSCAAGGCGCCGAGTTCCCGAG      | 272  |
| Db | 1290 | GGCTTA-TTTTTTTAGGAAGATCTGGCTTCTCTAAGAGGAAGGCAAGGAATTTTCTTC        | 1345 |
| QY | 273  | CGAGCAGAACCGCGCCAAACAGCCCCACCAAGCCGCGAGCTGCAGGT-----GCGCGGCGA     | 326  |
| Db | 1349 | AGAGCAGACCCGCGCCAAACAGCCCCACCGCGCGCAAGCTTCAAGTGTCTGGGTCGCGACA     | 1408 |
| QY | 327  | CAACCCCCCGCAGCGCGCGCGCGCGAGGCGCCAGAGGCA-----CCCTGAATTCCCGCA       | 380  |
| Db | 1409 | CAACTCCCCCTCCGAAGCAGAGAGGCCACCGCCAGGGCACGGTGTCTTCAACTTCCCTCA      | 1465 |
| QY | 381  | GATCACCTGTGGCAGCGCCCCCTGTGTAGCATCAAGGTGGCGGCGCCAGATCAAGAGGCG      | 440  |
| Db | 1469 | GGTACGCTTTTGGCAGGCAACCCCTGTGTACCATCAAGATCGGGGGGCGAGCTCAAGAGGCG    | 1528 |
| QY | 441  | CCGTGTGGACACCGGCGCGCGAGCAACCGTGTGTGAGAGAGTGAAGCTCCCGCGGAGAGG      | 500  |
| Db | 1529 | TCTCTGGACACCGGAGCAGAGGACACCGTGTGTGAGAGAGTGTGTTGGCAGGGCGCGTG       | 1588 |
| QY | 501  | GAAGCCCAAGATGATCGCGCGATCGCGGCTTCAATCAAGTGGCCCAAGTACGACCAAGT       | 560  |

|    |      |                                                                     |       |
|----|------|---------------------------------------------------------------------|-------|
| Db | 1589 | GAAGCCCAAGATGATCGGGGAAATCGGCGGTTTATCAAGGTGGCCAGTATGACAGAT           | 16148 |
| OY | 561  | CTGTATGAGATCTGCGGCAAGAAAGCCATGSCACCGTGTGATCGGCCCCACCCCGT            | 620   |
| Db | 1649 | CCTCATGAAATCTGCGGCCCAAGAGGCTATGCGTACCGTGTGGGCCCCCAACCCGT            | 1708  |
| OY | 621  | GAACATCATCGGCGCGCAACATGCTGACCAGCTGGGCTGCAACCTTGAACTTCCCCATCAG       | 680   |
| Db | 1709 | CAACATCATCGGAGCGCAACCTGTGTGACGCAATGCTGTGCAAGCTTGAACCTTCCCATTTAG     | 1768  |
| OY | 681  | CCCCATCGAGACCGTGCCCGTGAAGCTGAAGCCCGGCATGGAACGCGCCCAAGTGAAGCA        | 740   |
| Db | 1769 | CCCTATCGAGACGCGTACCGGTTAAGGCTGAGACCCCGGATGGAACGCGCCGAAGCTCAAGCA     | 1828  |
| OY | 741  | GTGGCCCCCTGACCGAGAGAAAGATCAAGGCCCTTGACCGGCATCTGCGAGAGATGAGAA        | 800   |
| Db | 1829 | ATGGCGATTTGACAGAGGAGAGATCAAGGCACTGGTGAAGATTTTGACAGAGATGGAABA        | 1888  |
| OY | 801  | GGAGGCGAAGATCAACCAAGATCGGCCCCGAGAACCCCTTACAACACCCCGGTGTGCGCAT       | 860   |
| Db | 1889 | GGAAGGGGAAATCTTCCAAAGATTGGGCGCTGAAACCCGATCAACACGCGCGGTTCGCAT        | 1948  |
| OY | 861  | CAAGAAGAAGGACAGCACCAAGTGGCGCAAGCTGATGGAATCTTCCGCGAGCTGAACAAGCG      | 920   |
| Db | 1949 | CAAGAAGAAGGACCTGACGAATATGCGCAACTGTGATCTTCCGCGAGCTGAACAAGCG          | 2008  |
| OY | 921  | CACCCAGGACTCTTGAGAGGTGCAAGCTGGGCATCCCCACCCCGCGCTGAAGAAGA            | 980   |
| Db | 2009 | CACCCAGGACTCTTGAGAGGTTCAGAGGTTCAGAGTGGGCATCCCCGACCCCGAGGCGTGAAGAAGA | 2068  |
| OY | 981  | GAAGAAGCTGACCGGTGTGAGCGTGGGCGACGCTTACGAGCTGCCCTTGACAGAGA            | 1040  |
| Db | 2069 | GAAATCCGTCGACCGTACTGAGATGAGGTGAGATGCTTACTTCTCCGTTCCCTTGACAGAGA      | 2128  |
| OY | 1041 | CTTCCGCAAGTACACCGCTTCAACATGCCAGATCAACAAGAGACCCCGGATTCG              | 1100  |
| Db | 2129 | CTTCAAGGAAGTACCTGCTTCAACATCCCTTGATCAACAAGAGACCCGGGATTCG             | 2188  |
| OY | 1101 | CTTACAGTACCAAGCTGTGCTGCCCAAGGCTGGAAGGGGACCCCAAGCATCTTCCAGACAG       | 1160  |
| Db | 2189 | ATTATCGTACCAAGCTGTGCTGCCCAAGGCTGGAAGGGCTCTCCGCAATCTTCCAGAGTAG       | 2248  |
| OY | 1161 | CATGACCAAGATCTTGAGAGCTTTCGCGGCCGCAACCCCGAGATCTGTATCTTACA--          | 1217  |
| Db | 2249 | CATGACCAAAATCTTGAGAGCTTTCGCGCAACAGAACCCCGACATCTGTATCTTACGTA         | 2308  |
| OY | 1218 | ---GGCCCCCTGTACGTGGGCGACGACCTGGAATGGCGCAGACCGCGCAAGATCGA            | 1274  |
| Db | 2309 | CATGATGATCTTGTACGTGGGCTGTGATCTTGAAGATGAGGAGACCGCACCAAGATCGA         | 2368  |
| OY | 1275 | GGAGCTGGCAAGGACCTGTGCGCTGGGGCTTACACACCCCGACAAAGAACACAGAA            | 1334  |
| Db | 2369 | GGAGCTGGCGACGACCTGTGAGGTGGAGCTGACACACCCGACAAAGAACACAGAA             | 2428  |
| OY | 1335 | GGAGCCCCCTTCTGTGTGATGGCTACAGACTGCAACCCCGACAAAGTGAACCGTGAAGCC        | 1394  |
| Db | 2429 | GGAGCTTCTTCTGTGTGATGGGTATAGACTGCAACCTTGAACAAATGGAACGTGAGAGCC        | 2488  |
| OY | 1395 | CATGAGCTGGCCGAGAGAGAGAGCTGGAACCTGTGAAGCATCCAGAAAGCTGTGGGCA          | 1454  |
| Db | 2489 | TATGCTGTGCTGCAAGAAAGACACTGGACTGTCAAGCACTTACAGAAAGCTGTGGGAA          | 2548  |
| OY | 1455 | GCTGAACGTGGGCGAGCGAGATCTTACCCCGCATCAAGGTGGCGCAGCTGTGCAAGCTGCT       | 1514  |
| Db | 2549 | GTTGAACGTGGGCGAGCTGAGATTTTACCCGAGATTTAAGGTGAGGACCTGTGCAAACTCT       | 2608  |
| OY | 1515 | GCAGCGCGCCCAAGGCCCTTGACCGACATCTGTGCCCTTGACCGAGAGGCGAGCTGAGACT       | 1574  |
| Db | 2609 | CCGCGGAACCAAGGCACTCAAGAGGTGATCCCTTAAACGAGAGGCGGAGCTCGAATCT          | 2668  |
| OY | 1575 | GGCGAGAACCGCAGATCTTGGCGAGACCTGTGACAGGCGTGTATCTTACGACCCCAAGCA        | 1634  |

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Db 2669 GGCAGAAAAACGAGAGATCTTAAGAGCCCGCTGTACTATGACCCCTCCAA 2728
Oy 1635 GAACTGTGGCCGAGATCCAGAAAGCAGGCGCCAGCAAGTGTGACCTTACAGATCTACCA 1694
Db 2729 GAACTGTATCCCGAGATCCAGAAAGCAGGCGCCAGTGTGACCTTACAGATCTACCA 2788
Oy 1695 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 1754
Db 2789 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 2848
Oy 1755 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 1814
Db 2849 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 2908
Oy 1815 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 1874
Db 2909 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 2968
Oy 1875 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 1934
Db 2969 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 3028
Oy 1935 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 1994
Db 3029 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 3088
Oy 1995 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 2054
Db 3089 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 3148
Oy 2055 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 2114
Db 3149 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 3208
Oy 2115 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 2174
Db 3209 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 3268
Oy 2175 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 2234
Db 3269 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 3328
Oy 2235 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 2294
Db 3329 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 3388
Oy 2295 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 2354
Db 3389 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 3448
Oy 2355 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 2414
Db 3449 GAAAGCTTCAAGAACTTGAAAGACCGGCAAGTATGCGCAAGATGCGCACCGCCACCA 2500

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RESULT 10
US-09-936-572-2
Sequence 2, Application US/09936572
Patent No. 6783981
GENERAL INFORMATION:
APPLICANT: UDEN, MARK
APPLICANT: MITROPHANOUS, KYRIACOS
TITLE OF INVENTION: ANTI-VIRAL VECTORS
FILE REFERENCE: 078883/0137
CURRENT APPLICATION NUMBER: US/09/936, 572
PRIORITY FILING DATE: 2001-12-11
PRIORITY APPLICATION NUMBER: PCT/GB00/01002
PRIORITY FILING DATE: 2000-03-17
PRIORITY APPLICATION NUMBER: GB 9906177.2
PRIORITY FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 73
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 2

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; LENGTH: 4307
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: gagpol-synp-codon optimised gagpol sequence
US-09-936-572-2

Query Match 66.3%; Score 1632.6; DB 3; Length 4307;
Best Local Similarity 82.0%; Pred. No. 2,4e-249;
Matches 1927; Conservative 0; Mismatches 403; Indels 19; Gaps 4;

Oy 33 GGCACACGCGCCAACTCTGATGACGAGCGCAACTTAAAGGCGCCCAACGATCAT 92
Db 1110 GACCAACTCCGCTACATCATATGATCATGCGGCAACTTTGGAAACCAACGAAATCGT 1169
Oy 93 CAAGTCTTCAACTGCGCAAGAGAGGCGCAATGCGCCGCAACTGCGGCGCCCGGCA 152
Db 1170 CAAGTCTTCAACTGCGCAAGAGAGGCGCAATGCGCCGCAACTGCGGCGCCCGGCA 1229
Oy 153 GAAAGGCTGCTGAAAGTGTGCGGCAAGAGGCGCCCAAGATGAAGCTGACCGAGCGCA 212
Db 1230 AAGAGGCTGCTGAAAGTGTGCGGCAAGAGGCGCCCAAGATGAAGCTGACCGAGCA 1289
Oy 213 GGCACACTTCTCCGCGAGGACCTGCGCTTCCCGAGGCAAGGCGCGAGTTCCTCAG 272
Db 1290 GACTAA-TTTTAAAGAGATCTGACCTTCTTCAAGAGGAGGCGGAAATTTTCTTC 1348
Oy 273 CGAGAGAACCGCGCCAAACAGCCCGCAAGCGCGAGCTGAGGTGCGCG-----CGA 326
Db 1349 AAGAGAGACCAAGGCAACAGCCCGCAAGAGAGGCTTCAAGGTGAGAGCA 1408
Oy 327 CAACCCCGCGAGGCGCGCGCGCGCGCGCGCA-----CCCTGAATTTCCCGCA 380
Db 1409 CAACCTCCCTCAAGAGCGAGCGCGGATGACAAAGAACTGATCTTTAACTTCTCTCA 1468
Oy 381 GATCAACCTGTGCGAGCG 440
Db 1469 GATCACTTTTGGCAACGAGCCCTGTCACATTAAGATAGAGGCGCGCGCGCGCGCG 1528
Oy 441 CCGTGTGACACCG 500
Db 1529 TCTCTGTGACACCGAG 1588
Oy 501 GAAAGCCAAAGATGATGCG 560
Db 1589 GAAAGCCAAAGATGATGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1648
Oy 561 CCGTGTGAGATCTGTGCGCAAGAGGCGCAATGCGCGCGCGCGCGCGCGCGCGCGCG 620
Db 1649 CCGTGTGAGATCTGTGCGCGCAAGAGGCGCAATGCGCGCGCGCGCGCGCGCGCGCG 1708
Oy 621 GAAATCATGCGCGCGCAATGCTGACCGAGCTGCGCGCGCGCGCGCGCGCGCGCGCGCG 680
Db 1709 CAATCATGCGCGCGCAATGCTGACCGAGTTCGAGTTCGAGTTCGAGTTCGAGTTCG 1768
Oy 681 CCCCATGAGACCGGTCCGCTGAAGCTGAAGCCCGCGATGAGCGCGCGCGCGCGCGCGCG 740
Db 1769 CCTATGAGACCGGTACCGGTGAAGCTGAAGCCCGCGATGAGCGCGCGCGCGCGCGCG 1828
Oy 741 GTGCGCGCTGACCGAGAGAGAGATGCAAGCGCGCGCGCGCGCGCGCGCGCGCGCG 800
Db 1829 ATGCGCATGAGACCGAGAGAGAGATGCAAGCGCGCGCGCGCGCGCGCGCGCGCGCG 1888
Oy 801 GAGGCGAAGATCAACCAAGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 860
Db 1889 GAGGCGAAGATCTTCAAGATTTGGCTGAGAACCGGTACACCGCGCGGTGTTCCGCA 1948
Oy 861 CAAG 920
Db 1949 CAAG 2008
Oy 921 CACCCAGAGACTTCTGGAGAGTGAAGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 980

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QY 273 CGAGAGAACCGCGCAACAGCCCAACAGCCGAGCTGACGCTGCGCG-----CGA 326  
DB 1369 AGAGAGAACCGAGCGCAACAGCCCAACAGAGAGAGCTTACGTTTGGGAGAGAGACA 1428  
QY 327 CAACCCCGCAGAGCGCGCGCGAGCGCGCAAGGCA-----CCCTGAACTTCCCA 380  
DB 1429 CAACCTCTCTCAGAGAGAGAGCGAGATGACAGAGAACTGATCTTTAGCTTCTCA 1488  
QY 381 GATGACCTGTGGAGCGCGCCCTGTGAGCATCAAGGTGGCGCGCAATCAAGAGAGC 440  
DB 1489 GATCACTTTTGGACGCGACCCCTCTCTCAATTAAGATAGGCGCGAGCTCAAGAGAGC 1548  
QY 441 CCTGTGAGACACCGCGCGCGAGACACCGGTCTGAGAGAGATGAGCTGCGCGCAAGT 500  
DB 1549 TCTCTGAGACACCGAGAGAGAGACACCGGTCTGAGAGAGATGATGTTTCCAGCGCTG 1608  
QY 501 GAAGCCCAAGATGATGCGCGCGCATGCGCGCATCGGCACTGATCGCGCCCAACCCGT 620  
DB 1609 GAAGCCCAAGATGATGCGCGCGCATGCGCGCATCGGCACTGATCGCGCCCAAGAT 1668  
QY 561 CCTGATCGAGATCTGCGCGCAAGAGCGCATCGGCACTGATCGCGCCCAACCCGT 620  
DB 1669 CCTGATCGAGATCTGCGCGCATGAGGCTATCGGTCAGTCCGTCGCGCGCCCAACCCGT 1728  
QY 621 GAACATCATCGCGCGCGCATGATCGGCACTGAGCGCTGCGCACTGATCGGCACTG 680  
DB 1729 CAACATCATCGAGCGCGCATGATCGGCACTGAGCGCTGCGCACTGATCGGCACTG 1788  
QY 681 CCCCATCGAGACCGTCCGCGTGAAGCTGAAGCCCGCGCATGAGCGCGCCCAAGTGAAGCA 740  
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QY 741 GTGGCCCTCGAGCGCGAGAGATCAAGGCGCTGACCGCGCATGCGAGAGATGAGAG 800  
DB 1849 ATGGCCATTTGAGAGAGAGAGATCAAGGCGCTGAGAGATTTGACAGAGATGAGAG 1908  
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DB 1909 GGAAGGAGAAATCTCCAAATTTGGGCTTGAAGACCGGTACACACCGCGTGTTCGCAT 1968  
QY 861 CAAGAGAGAGACAGACCAAGTGGCGCAAGCTGTGAGCTTCCGCGAGCTGAACAAGG 920  
DB 1969 CAAGAGAGAGACTCGACCAAAATGGCGCAAGCTGTGAGCTTCCGCGAGCTGAACAAGG 2028  
QY 921 CAACCGAGACTTGTGGAGGTGACGTGGGCAATCCCGCAACCCCGCGCGCTGAAGAAG 980  
DB 2029 CAACCGAGACTTGTGGAGGTGACGTGGGCAATCCCGCAACCCCGCGCGCTGAAGAAG 2088  
QY 981 GAAGAGCGTGAACGCTGTGAGCGTGGGCGACGCTTACGCTGACGCTGCGCTGAGCAGAG 1040  
DB 2089 GAATCTGTGAGCGCTTGTGAGTGTGGTGAATGCTTCTCTCGTTCCTCTGAGCAGAG 2148  
QY 1041 CTTCCGCAAGTACACCGCTTCAACATCCCGACATCAACAGAGACCCCGCGCATTCG 1100  
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QY 1101 CTACCGTACACGCTGTGCGCGAGGCTGAGAGGCGCGCAAGCATTTTCAAGAGAG 1160  
DB 2209 ATATCGATACAGGCTGTGCGCGAGGCTGAGAGGCTGTCCGCAATTTTCAAGAGAG 2268  
QY 1161 CATGACCAAGATCTGAGGCGCTTCCGCGCGCGCAACCCGAGATCGTGAATCAAC--- 1217  
DB 2269 CATGACCAAGATCTGAGGCGCTTCCGCGCGCGCAACCCGAGATCGTGAATCAAC--- 2328  
QY 1218 ---GCGCGCGCTGTACGTGGGCGAGCGACGTGAGATCGCGCAGACCGCGCGCAAGTGA 1274  
DB 2329 CATGAGATGACTGTGAGCTGTGATCTAGAGATGGGCGAGACCGCGCAAGATGGA 2388  
QY 1275 GAGCTGCGAGACCTGTGCGCTGGGCGCTTCAACACCCCGCAAGAGAGACCGAG 1334  
DB 2389 GAGCTGCGAGACCTGTGAGTGGAGCTGACCAACCGCAAGAGAGACCGAG 2448

QY 1335 GAGCGCGCGCTCTCTGTGATGGGCTACAGAGCTGACCCCGCAAGTGAACCGTGGACCC 1394  
DB 2449 GAGCGCTTCTTCTCTGTGATGGGCTTACAGAGCTGACCCCTGACAAATGAGACCGTGGACCC 2508  
QY 1395 CATGAGCTGCGCGAGAGAGAGAGCTGAGCGGTGAACGACATTCAGAACTGTGGGCGCA 1454  
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DB 2629 CCGCGAGAGCAAGGAGCTTCAAGAGATGATCCCTTACCGAGAGAGCGGAGCTGAGCT 2688  
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DB 2689 GCGAGAGAGCGAGAGATCTTAAAGAGCCCGTGAACCGCGGTGATCAACGCCCTCA 2748  
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DB 2989 GAGCTGAGAGAGCTGAGCGAGCGGTGAGAGATTCGATGAGAGATGATGATCTG 3048  
QY 1935 GAGCTGAGTACAGAGCTGAGAGAGAGCGCATTCGCGCGCGAGACTTGTACGTGA 1994  
DB 3049 GAGCTGAGTACAGAGCTGAGAGAGAGCGCATTCGCGCGCGAGACTTGTACGTGA 3108  
QY 1995 GCGCGCGCGCAACCGGAGAGCAAGATTCGCAAGCGCGCTACAGTACGATCCGGGCGG 2054  
DB 3109 TGGGCGCGCTTACAGGAGAGCTAAGCTGGGCAAGCGCGATACGTACATTAACCGGCGAG 3168  
QY 2055 GCGAGAGATTCGAGAGCTTGAACGAGACCAACCGAGAGAGCGGCTGAGGCGCATCA 2114  
DB 3169 ACAGAGAGTGTTCACCTTCACTGACACCAACCGAGAGAGCTGAGGCGCATTTTA 3228  
QY 2115 GCTGGCGCTGAGAGAGCGGCGAGCGGTGAACATCTGACCGAGCGCATGACCGCT 2174  
DB 3229 CTTGCTTTTGAAGAGACTCGGCGCTGAGGCTGAACATCTGACAGATCTCAAGTATCCCT 3288  
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DB 3289 GCGCATCATCAAGCGCGCAGCGCAAGAGTGTGCTGAGTGTGATCAATCAGATCATCA 3348  
QY 2235 GCGATGATTCAGAGAGAGAGAGTGTACTGTAGCTGGGTGCGCGCGCAAGAGGCGATTCG 2294  
DB 3349 GCGATGATTCAGAGAGAGAGAGTGTACTGTAGCTGGGTGCGCGCGCAAGAGGCGATTCG 3408  
QY 2295 GCGCAACGAGAGATGAGCAAGCTGTGAGCAAGGCGATTCGCAAGTGTGTTCTGGA 2354  
DB 3409 GCGCAACGAGAGATGAGCAAGCTGTGCTGAGTGTGCTGAGTGTGATTTCTGGA 3468  
QY 2355 CCGCATCGA 2363  
DB 3469 TGGCATCGA 3477



RESULT 12  
 US-09-936-572-13  
 ; Sequence 13, Application US/09936572  
 ; Patent No. 6783981  
 ; GENERAL INFORMATION:  
 ; APPLICANT: UDEN, MARK  
 ; APPLICANT: MITROPANOUS, KYRIACOS  
 ; TITLE OF INVENTION: ANTI-VIRAL VECTORS  
 ; FILE REFERENCE: 078883/0137  
 ; CURRENT APPLICATION NUMBER: US/09/936,572  
 ; CURRENT FILING DATE: 2001-12-11  
 ; PRIOR APPLICATION NUMBER: PCT/GB00/01002  
 ; PRIOR FILING DATE: 2000-03-17  
 ; PRIOR APPLICATION NUMBER: GB 9906177.2  
 ; PRIOR FILING DATE: 1999-03-17  
 ; NUMBER OF SEQ ID NOS: 73  
 ; SOFTWARE: PatentIn Ver. 2.1  
 ; SEQ ID NO 13  
 ; LENGTH: 4353  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: pSYNG3-codon  
 ; OTHER INFORMATION: Optimised HIV-1 gagpol with leader sequence from  
 ; OTHER INFORMATION: the major splice donor  
 US-09-936-572-13

Query Match 66.0%; Score 1624.6; DB 3; Length 4353;  
 Best Local Similarity 81.8%; Pred. No. 4,5e-248; Indels 19; Gaps 4;

Matches 1922; Conservative 0; Mismatches 408; Indels 19; Gaps 4;

33 GGCACACGACGCGCAATCTGTATGACGCGACGCAATCTTCAAGGCGCCCAAGCGCATCAT 92  
 1156 GACCAACCTCCGCTACATCATGATGACAGCGGCAACTTTCGAAACCAAGCAAGATCGT 1215  
 93 CAAGTCTTCACTGCGGCAAGAGGCGCAATCGCCCGCACTGCGCGCCCGCGCA 152  
 1216 CAAGTCTTCACTGCGCAAGAGGCGCAATCGCCCGCACTGCGCGCCCGCGCA 1275  
 153 GAAAGGCTGCTGGAAGTGGCGCAAGAGGCGCAATCGCAATGAAAGCATGCAACGAGCGCA 212  
 1276 AAGGCTGCTGGAAGTGGCGCAAGAGGCGCAATCGCAATGAAAGCATGCAACGAGCGCA 1335  
 213 GGCCAACTCTTCCGCGAGGACTGCGCTTCCCGCGAGGCGCAAGGCGCGGATTCGCCAG 272  
 1336 GGCCTAA-TTTTTTGGGAAGATCTGGCTTCCCAAGAGGAGGCGCAAGGATTTCTTC 1394  
 273 CGAGCAAGACCGCGCAACAGCCCAACAGCCGCGAGCTTCAAGTGTGCGCG- -CGA 326  
 1395 AGAGCAAGACCGAGCGCAACAGCCCAACAGAGAGGCTTCAAGTGTGCGAGAGAGCA 1454  
 327 CAACCCCGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 380  
 1455 CAACCTCTCTCAGAGAGAGGCGCGAGATGACAGAGAACTGTATCTTTAGCTTCCCTCA 1514  
 381 GATCACTCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 440  
 1515 GATCACTCTTTTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1574  
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 1575 TCTCTGACACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1634  
 501 GAAAGCGCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 560  
 1635 GAAAGCGCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1694  
 561 CTTGATCGAGATCTGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 620  
 1695 CTTGATCGAGATCTGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1754  
 621 GAAATCATCTGCGCGCGCAACATGCTGACCGAGCTGCGCGCGCGCGCGCGCGCGCGCGCG 680

1755 CAACATCATGGAAGCAACCTGTTGACGAGAGATCGGTTGACAGCTGAACTTCCCATTTAG 1814  
 681 CCCCATCGAGACCGTGCCTGCGAGTGAAGCCCGGATGAGACCGGCGCAAGAGTGAAGCA 740  
 1815 CCTATGAGACCGTTACCGTGAAGCTGAAGCCCGGATGAGACCGGCGCAAGAGTGAAGCA 1874  
 741 GTGCGCCCTGACCGAGAGAGAGATCAAGCCCTGACCGGCATCTGCGAGAGATGAGAGAA 800  
 1875 ATGCGCATTTGACAGAGAGAGAGATCAAGGCTCGTGTGAGATTTGACAGAGATGAGAAA 1934  
 801 GGAGGCGAAGATGACCAAGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAT 860  
 1935 GAAAGGAAATCTTCAAGATTTGAGCTGAAACCCGTAACAACGCGGTGTTGCAAT 1994  
 861 CAAGAAAGAGACAGACCAAGTGGCGCAAGCTGTGAGACTTCCGAGAGTGAACAAGCG 920  
 1995 CAAGAAAGAGACCTGAGAGAGATGAGCGCAAGCTGTGAGACTTCCGAGAGTGAACAAGCG 2054  
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 2055 CACCGAAGACTTCTGGAGGTGACAGCTGGAGCATCCCAACCCCGCGCGCGCGCGCGCGCG 2114  
 981 GAAAGGTGACCGTGTGAGCGTGGCGAGAGCGCTTACAGCGTCCCGCGCGCGCGCGCGCG 1040  
 2115 GAAATCGGTGACCGTGTGAGCGTGGCGAGTGGGATGCTTACTTCTCCGTTCCGTAAGAGA 2174  
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 2175 CTTGAGAGAGTACATGCTGCTTCAATTCCTTGCATCAACAAGAGACCCCGCGGATTCG 2234  
 1101 CTACAGTACACGCTGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1160  
 2235 ATATCAGTACACGCTGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2294  
 1161 CATGACCAAGATCTTGGAGCGCTTCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1217  
 2295 CATGACCAAGATCTTGGAGCGCTTCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2354  
 1218 - - -GAGCCCTGTACGTGGCGAGCGCACTTGAAGTGGCGAGACCGCGCGCAAGATGCA 1274  
 2355 CATGATGATCTTGTACGTGGCGCTGTGATTAAGATAGGCGAGCGCAACAGATGCA 2414  
 1275 GAGCTGCGCAAGACCTGCTGCGCGCTGCGCTTCAACACCCCGCAAGAGACCGAGAA 1334  
 2415 GAGCTGCGCAAGACCTGCTGCGCGCTGCGCTTCAACACCCCGCAAGAGACCGAGAA 2474  
 1335 GAGACCCCTTCTGCTGAGATGAGGCTACAGAGCTACCCCGCAAGTGGAGCGCGCGCG 1394  
 2475 GAGACCTTCTGCTGAGATGAGGCTTACAGAGCTGACCTTCAACAAATGAGCGGTGAGCG 2534  
 1395 CATGAGAGTGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1454  
 2535 TATGCTGTGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2594  
 1455 GCTGAATGAGCGAGAGATCTACCCCGCATCAAGGTGCGCAAGCTGTGCAAGCTGCT 1514  
 2595 GTTGAATGAGCGAGAGATCTACCCCGCATCAAGGTGCGCAAGCTGTGCAAGCTGCT 2654  
 1515 GCGGCGCGCGCAAGCGCTGACCGAGATCGTGCCTCTGACCGAGAGCGCGAGCGTGAAGCT 1574  
 2655 CCGGCGCAACCAAGGCACTGACAGAGTGTATCCCTTCAACGAGAGCGCGAGCTGAACT 2714  
 1575 GCGCGAAGACCGAGAGATCTGCGCGAGCGCGGTGCAAGCGGTGTAAGTGAAGAGAGAG 1634  
 2715 GCGAGAAACCGAGAGATCTTAAAGAGCGCGGTGCAAGCGGTGTAAGTGAAGAGAGAGAG 2774  
 1635 GAGCTGTGCGCGAGATCTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1694  
 2775 GAGCTGTGCGCGAGATCTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2834  
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Db 2464 CTTGACGAGATGACCTGCTTCAACATCCCTTCATCAACACGAGACACCGGGGATTCG 2523  
 Qy 1101 CTACCAAGTACACGCTGTGCTCCCAAGGCTGAGAGGACGCCAGCATCTTCCAGAGCAG 1160  
 Db 2524 ATATCAAGTACACGCTGTGCTCCCAAGGCTGAGAGGCTCTTCCCGAATCTTCCAGAGTAG 2583  
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 Db 2584 CATGACCAAAATCTGTGAGCCCTTCCGCAACAGAACCCCGACATCGTATCTATCAGTA 2643  
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 Qy 1455 GCTGAAGTGGGCGCAGACGATCTACCCCGGACATCAAGGTGGCGCAGCTGTGCAAGCTGCT 1514  
 Db 2884 GTTGAAGTGGGCGCAGATCTACGATTTACCCAGGATTTAGGTGAGGAGCTGTGCAAGCTCT 2943  
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 Qy 1695 GAGAGCTTCAAGAACTTGAAGACCGGCAAGTACGCAAGTGGCACCGGCCAACCA 1754  
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 Qy 1755 CGAGGTGAAGACGCTGACCGGAGCGCTGTGACAAAGATCTCCCATGAGAGCATCTGTATCTG 1814  
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 Db 3244 GAGCAAGACCTCTAAGTTCAAGCTGCGCATCCAGAAAGAACTGTGGAAACTGTGTGAC 3303  
 Qy 1875 CGACTACTGAGAGGCGACCTGTGATCCCGAGTGGAGTTCTGTGAACACCCCGCCCTGTGT 1934  
 Db 3304 AGAGTATGAGAGGCGACCTGTGATCTGTGAGTGGAGTTCTGTGAACACCCCGCCCTGTGT 3363  
 Qy 1935 GAAAGTGTGTACCAAGCTGTGAGAGAGAGCCCATCTGTGGCGCGAGACCTTCTAGTGTGA 1994  
 Db 3364 GAAAGTGTGTGTACCAAGCTGTGAGAGAGAGCCCATCTGTGGCGCGAGACCTTCTAGTGTGA 3423  
 Qy 1995 CGGCGCGCGCAACCGGAGAGCAAGATGCGGCAAGGCGGGCTACGTGACCGACCGGGGCGG 2054  
 Db 3424 TGGGGCCCTTAACAGGAGAGACTTAAGCTGTGGCAAGCCGATACGTCATTAACCGGGGAG 3483  
 Qy 2055 GCAGAGATCTGTGAGCTGTGACCGAGACCAACCAAGAAAGCCGAGCTGAGCGCATCA 2114  
 Db 3484 ACAAGAGTGTGTCACTCTCACTGACACCAACCAAGAAAGCTGAGCTGTGAGCGCATTTA 3543  
 Qy 2115 GCTGGCCCTGTGACGACGAGGCGAGGAGGTGAACATCTGTGACCGACCGAGTACGCTT 2174  
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 Qy 2235 GCAGCTGATCAAGAGAGAGAGGTGTACTGTAGCTGTGTGCTGCCCGCCCAAGAGGCAATCGG 2294  
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 Db 3724 CGGCAATGAGCAGGTCCAGCAAGCTGTGTCTCGGCTGTGCAATGAGAAAGTGTATCTTGA 3783  
 Qy 2355 CGGCAATCGA 2363  
 Db 3784 TGGCATCGA 3792

RESULT 14  
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 ; Sequence 5, Application US/09552950  
 ; Patent No. 6541248  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Oxford Biomedica (UK) Limited  
 ; TITLE OF INVENTION: Anti-Viral Vectors  
 ; FILE REFERENCE: 674524-2004  
 ; CURRENT APPLICATION NUMBER: US/09/552,950  
 ; CURRENT FILING DATE: 2000-04-20  
 ; NUMBER OF SEQ ID NOS: 22  
 ; SOFTWARE: PatentIn Ver. 2.1  
 ; SEQ ID NO 5  
 ; LENGTH: 9772  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: pSYNGP  
 US-09-552-950-5

Query Match 66.0%; Score 1624.6; DB 3; Length 9772;  
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 Matches 1922; Conservative 0; Mismatches 408; Indels 19; Gaps 4;

Qy 33 GGGCAGCAGCGCAACATCTGTATGACAGCGCAACTTCAAGGGCCCAAGCGCATCAT 92  
 Db 2217 GACCAACTCGCTACATCATGATGACAGCGGCAACTTTCGAAACCAACGAAAGATCGT 2276  
 Qy 93 CAATGCTTCAACTGCGGCAAGAGGCGCACATGCGCCCGCAACTGCGGCGCCCGCA 152  
 Db 2277 CAATGCTTCAACTGCGGCAAGAGGCGCACATGCGCCCGCAACTGCGGCGCCCTTAGGAA 2336  
 Qy 153 GAAAGGCTGTGAAAGTGTGCGCAAGAGGCGCACAGATGAAGACTGCAACGAGCGCA 212  
 Db 2237 AAAGGCTGTGAAAGTGTGCGCAAGAGGCGCACAGATGAAGACTGCAAGATGAAGCA 2396  
 Qy 213 GGGCACTTCTTCCGAGAGACTGTGCTTCCCGAGGCGCAAGCGCGAGTTCCCGAG 272  
 Db 2297 GGGCTA-TTTTTTGAAGAAATCTGCGCTTCCCAAGAGGAGCGCAAGGAAATTTCTTC 2455  
 Qy 273 GAGACGAACCGCGCCCAAGCGCCCAACGACCGCGAGCTGTGAGGTGGCGG-----CGA 326  
 Db 2456 AGACGAACCAAGACCGCAAGCGCCCAACGAGAGAGAGCTTCAAGTTTGGGGAAGAGCA 2515  
 Qy 327 CAACCCCGAGAGGCGCGGCGCGGAGCGCAAGGCA-----CCCTGAATCTCCCA 380  
 Db 2516 CAATCTCTCTCAGAGAGAGGCGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 2575  
 Qy 381 GATCACCTGTGTGAGCGCCCGCTGTGTGAGCATCAAGTGGGCGGCAAGATCAAGAGGC 440  
 Db 2576 GATCACCTTTTGTGAGAGGAGCGCCCTGTGTGAGCATCAAGTGGGCGGCGGAGGAGGAGG 2635  
 Qy 441 CTGTGTGACACCGGCGCGAGCAACCGTGTGTGAGAGATGAGCTGTGCGGCGCAAGT 500  
 Db 2636 TCTCTGTGACACCGAGCAGACCGTGTGTGAGAGATGTCTTGTGCAAGGCGCGCTG 2695



SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 6  
; LENGTH: 8366  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURES:  
; OTHER INFORMATION: Description of Artificial Sequence: DNA sequence  
; OTHER INFORMATION: Description of the construct pCMVgspol1Bkan containing a CMV  
; OTHER INFORMATION: promoter, a HIV gag/pol gene and a kanamycin  
; OTHER INFORMATION: resistance gene  
US-09-872-733A-6

Query Match 63.6%; Score 1566; DB 3; Length 8366;  
Best Local Similarity 80.2%; Pred. No. 8.4e-239;  
Matches 1885; Conservative 0; Mismatches 446; Indels 19; Gaps 4;

QY 33 GGGCCACGAGCCCAATCTGATGACGCGCACTTCAAGGGCCCCCAAGCGATCAT 92  
DB 1879 GACGAACTCGGCGAATCATGATGACAGAGGCACTTCGGAACCGAGATCATGT 1938  
QY 93 CAAGTGTCTCAACTGCGGCAAGAGGCGCATCGCCGCAACTGCGCGCCCCCGCA 152  
DB 1939 CAAGTGTCTCAACTGCGGCAAGAGGCGCATCGCCGCAACTGCGCGCCCCCGCA 1998  
QY 153 GAAAGGCTGCTGAAGTGCAGGCAAGAGGCGCACTGAAAGATGATGATCTGAGAGCA 212  
DB 1999 GAAAGGCTGCTGAAGTGCAGGCAAGAGGCGCACTGAAAGATGATGATCTGAGAGCA 2058  
QY 213 GGGCACTTCTTCCGCGAGACCTGCTTCCCGAGGCAAGCGCGGAGTCCCGAG 272  
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QY 273 CGAGAGAGACCGGCGCAAGAGGCGCACTGCGGCAAGTGCAGGCGCGGCGGCGGCGG 326  
DB 2118 AGAGAGAGACCGGCGCAAGAGGCGCACTGCGGCAAGTGCAGGCGCGGCGGCGGCGG 2177  
QY 327 CAACCCCGGCAAGGCGGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 380  
DB 2178 CAACCCCGGCGCAAGGCGGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 2237  
QY 381 GATCACTCTGCGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 440  
DB 2238 GATCACTCTGCGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 2297  
QY 441 CCGTGTGAGACCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 500  
DB 2298 GCGTGTGAGACCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 2357  
QY 501 GAAAGCCCAAGATGATCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 560  
DB 2358 GAAAGCCCAAGATGATCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 2417  
QY 561 CCGTGTGAGATGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 620  
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DB 2718 CAAGAGAGAGACAGTACCAAGTGAAGAAAGCTGTGACTTCAGAGGCTGAAACAAGAG 2777  
QY 921 CACCCAGAGACTTCTGGAGAGGTGAGCTGGGCGATCCGCCACCCCGCGGCGGCGGCGGCGG 980  
DB 2778 AACTCAGAGACTTCTGGAGAGGTGAGCTGGGCGATCCGCCACCCCGCGGCGGCGGCGGCGG 2837  
QY 981 GAAAGCGTGAACGCTGTGAGAGTGGAGCGAGCGCTACTTCAAGCTGCGGCGGCGGCGGCGG 1040  
DB 2838 GAACTCAGTGAACGCTGTGAGAGTGGAGCGAGCGCTACTTCAAGCTGCGGCGGCGGCGGCGG 2897  
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DB 3078 CATGAGAGAGCTCTGAGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGA 3137  
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DB 3138 GAGAGTCCGAGAGAGCTGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 3197  
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QY 1395 CATGAGCTGCGGAGAGAGAGAGCTGAGACCTGTAAGACATCCAGAGAGCTGTGGGCGAA 1454  
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QY 1455 GCTGAACGCGGCGGAGAGAGTCAACCCCGGAGTGAAGTGGCGGAGCTGTGCGGAGCTGCT 1514  
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QY 1515 GCGCGGCGGCGGAGAGCTGAGACCATGTCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1574  
DB 3378 TCGAGAGAGCGGAGAGCTGAGACCATGTCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 3437  
QY 1575 GCGCGGAGAGCTGAGAGTCTGCGGCGGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1634  
DB 3438 GCGAGAGAGAGCTGAGAGTCTGAGAGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 3497  
QY 1635 GAGAGTGTGGCGGAGAGTCCAGAGAGAGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1694  
DB 3498 GAGAGTGTGGCGGAGAGTCCAGAGAGAGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3557  
QY 1695 GAGAGCTTCAAGAGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1754  
DB 3558 GAGAGCTTCAAGAGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3617  
QY 1755 GAGAGTGAAGAGTGAACCGAGGCGGCGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1814  
DB 3618 GAGAGTGAAGAGTGAACCGAGGCGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3677  
QY 1815 GGGGAGAGAGAGAGAGTCCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1874  
DB 3678 GGGGAGAGAGAGAGAGTCCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 3737  
QY 1875 GAGAGTGAAGAGAGAGAGTCCGCGGCGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1934  
DB 3738 GAGAGTGAAGAGAGAGAGTCCGCGGCGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3797  
QY 1935 GAGAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1994

|    |      |                                                               |                               |      |
|----|------|---------------------------------------------------------------|-------------------------------|------|
| Db | 3798 | GAAACTGTGTATCAGCTGGAGAGAA                                     | CCATCTGTGGAGACAGACCTTCTACGTGA | 3857 |
| Qy | 1995 | CGGCGCCCGCAACCGGAGACCAAGATCGGCAAGGCCGGCTACGTGACCGA            | CCGGGGCCG                     | 2054 |
| Db | 3858 | TGGGGCAGCCCAACAGGAGACCAAGCTGGGCAAGGCAAGCTTACGTGACCAACCGAGGACG |                               | 3917 |
| Qy | 2055 | GCAGAAAGTCTGAGCTTGACCGAGACA                                   | CCACCAAGAACCGAGCTGCAAGCCATCCA | 2114 |
| Db | 3918 | ACAGAAAGTGTGACCTGACTGACACCA                                   | CCAGAAAGACTGAGCTGCAAGCCATCTA  | 3977 |
| Qy | 2115 | GCTGGCCCTGCAAGACACCGGCAAGAGTGA                                | CCGACAGCCAGTACGCCCT           | 2174 |
| Db | 3978 | CCTAGCTCTGCAAGACAGCGGACTGAAAGTGA                              | CACTGACAGACTCAAGTACGCACT      | 4037 |
| Qy | 2175 | GGGCATCATCCAGGCCGAGCCGACAGAGCGAGAGCTGTGAACCAAGATCATCGA        |                               | 2234 |
| Db | 4038 | GGGCATCATCCAGGACCAACCAACCAATCCGAGTCAAGAGCTGTGAACCAAGATCATCGA  |                               | 4097 |
| Qy | 2235 | GCAAGTGAACAAGAGAGAGGTGTACCTGAGCTGGGTGCCGCCCAAGAGGCAATGG       |                               | 2294 |
| Db | 4098 | GCAAGTGAACAAGAGAGAGGTGTACCTGAGCTGGGTGCCGCCCAAGAGGCAATGG       |                               | 4157 |
| Qy | 2295 | CGGCAACGAGCAGATCGACAGCTGTGCAAGGCAATCCGCAAGTGTCTCTGGA          |                               | 2354 |
| Db | 4158 | AGGAATGAAACAAGTAAATTAGTCAGTGCTGGGATCCGAAAGTGTCTCTGGA          |                               | 4217 |
| Qy | 2355 | CGGCATCGAT                                                    | 2364                          |      |
| Db | 4218 | CGGATCGAT                                                     | 4227                          |      |

Search completed: December 30, 2005, 09:18:28  
 Job time : 433.667 secs

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GenCore version 5.1.6  
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OM nucleic - nucleic search, using SW model

Run on: December 30, 2005, 07:51:44 ; Search time 1726 Seconds  
(without alignments)  
11800.393 Million cell updates/sec

Title: US-09-610-313B-31

Perfect score: 2463  
Sequence: 1 gtcgacgcaccatgcccga.....gggctgacgcacgtgattc 2463

Scoring table: IDENTITY NUC  
Gapop 10.0, Gapext 1.0

Searched: 9793542 seqs, 4134689005 residues

Total number of hits satisfying chosen parameters: 19587084

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

Database: Published Applications NA Main:\*

- 1: /cgn2\_6/ptodata/1/pubpna/US07\_PUBCOMB.seq:\*
- 2: /cgn2\_6/ptodata/1/pubpna/US08\_PUBCOMB.seq:\*
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- 9: /cgn2\_6/ptodata/1/pubpna/US10\_PUBCOMB.seq:\*
- 10: /cgn2\_6/ptodata/1/pubpna/US11\_PUBCOMB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARYS

| Result No. | Score  | Query Match | Length | ID | Description                         |
|------------|--------|-------------|--------|----|-------------------------------------|
| 1          | 2463   | 100.0       | 2463   | 3  | US-09-899-575-31 Sequence 31, Appl  |
| 2          | 2455.4 | 99.7        | 2457   | 6  | US-10-190-435-44 Sequence 44, Appl  |
| 3          | 2455.4 | 99.7        | 2457   | 6  | US-10-190-305A-38 Sequence 38, Appl |
| 4          | 2442.2 | 99.2        | 2469   | 3  | US-09-899-575-32 Sequence 30, Appl  |
| 5          | 2436.2 | 98.9        | 2457   | 3  | US-09-899-575-30 Sequence 32, Appl  |
| 6          | 2430.2 | 98.7        | 2457   | 6  | US-10-190-435-45 Sequence 45, Appl  |
| 7          | 2430.2 | 98.7        | 2457   | 6  | US-10-190-305A-39 Sequence 39, Appl |
| 8          | 2422.6 | 98.4        | 2445   | 6  | US-10-190-435-43 Sequence 43, Appl  |
| 9          | 2422.6 | 98.4        | 2445   | 6  | US-10-190-305A-37 Sequence 37, Appl |
| 10         | 2415.6 | 98.1        | 3930   | 6  | US-10-190-435-9 Sequence 9, Appl    |
| 11         | 2414   | 98.0        | 3930   | 6  | US-10-190-435-10 Sequence 10, Appl  |
| 12         | 2414   | 98.0        | 3930   | 6  | US-10-190-435-11 Sequence 11, Appl  |
| 13         | 2414   | 98.0        | 5184   | 6  | US-10-190-435-58 Sequence 58, Appl  |
| 14         | 2414   | 98.0        | 5184   | 6  | US-10-190-305A-82 Sequence 82, Appl |
| 15         | 2383.6 | 96.8        | 3531   | 6  | US-10-190-435-13 Sequence 13, Appl  |
| 16         | 2382   | 96.7        | 3537   | 6  | US-10-190-435-14 Sequence 14, Appl  |
| 17         | 2382   | 96.7        | 3537   | 6  | US-10-190-435-15 Sequence 15, Appl  |
| 18         | 2381   | 96.7        | 5145   | 6  | US-10-190-435-12 Sequence 12, Appl  |
| 19         | 2381   | 96.7        | 5145   | 6  | US-10-190-305A-12 Sequence 12, Appl |
| 20         | 2322.6 | 94.3        | 3607   | 6  | US-10-190-435-48 Sequence 48, Appl  |
| 21         | 2322.6 | 94.3        | 3607   | 6  | US-10-190-305A-42 Sequence 42, Appl |
| 22         | 2322.6 | 94.3        | 3624   | 6  | US-10-190-435-47 Sequence 47, Appl  |
| 23         | 2322.6 | 94.3        | 3624   | 6  | US-10-190-305A-41 Sequence 41, Appl |

|    |        |      |      |   |                                     |
|----|--------|------|------|---|-------------------------------------|
| 24 | 2304.4 | 93.6 | 3597 | 6 | US-10-190-435-46 Sequence 46, Appl  |
| 25 | 2304.4 | 93.6 | 3597 | 6 | US-10-190-305A-40 Sequence 40, Appl |
| 26 | 2142   | 87.0 | 2466 | 6 | US-10-241-009-31 Sequence 31, Appl  |
| 27 | 2142   | 87.0 | 2466 | 6 | US-10-190-434B-31 Sequence 31, Appl |
| 28 | 2142   | 87.0 | 2466 | 6 | US-10-190-305A-33 Sequence 33, Appl |
| 29 | 2142   | 87.0 | 2466 | 6 | US-10-190-619-31 Sequence 31, Appl  |
| 30 | 2123.8 | 86.2 | 2472 | 6 | US-10-241-009-32 Sequence 32, Appl  |
| 31 | 2123.8 | 86.2 | 2472 | 6 | US-10-190-434B-32 Sequence 32, Appl |
| 32 | 2123.8 | 86.2 | 2472 | 6 | US-10-190-305A-34 Sequence 34, Appl |
| 33 | 2122.8 | 86.2 | 2472 | 6 | US-10-976-619-32 Sequence 32, Appl  |
| 34 | 2122.8 | 86.2 | 2472 | 6 | US-10-241-009-30 Sequence 30, Appl  |
| 35 | 2115.2 | 85.9 | 2460 | 6 | US-10-190-434B-30 Sequence 30, Appl |
| 36 | 2115.2 | 85.9 | 2460 | 6 | US-10-190-305A-32 Sequence 32, Appl |
| 37 | 2115.2 | 85.9 | 2460 | 6 | US-10-976-619-30 Sequence 30, Appl  |
| 38 | 2114.2 | 85.8 | 3564 | 6 | US-10-241-009-14 Sequence 14, Appl  |
| 39 | 2114.2 | 85.8 | 3564 | 6 | US-10-190-434B-13 Sequence 13, Appl |
| 40 | 2114.2 | 85.8 | 3564 | 6 | US-10-190-434B-13 Sequence 13, Appl |
| 41 | 2114.2 | 85.8 | 3564 | 6 | US-10-190-619-13 Sequence 13, Appl  |
| 42 | 2114.2 | 85.8 | 3564 | 9 | US-10-976-619-13 Sequence 13, Appl  |
| 43 | 2114.2 | 85.8 | 3564 | 9 | US-10-976-619-14 Sequence 14, Appl  |
| 44 | 2113.6 | 85.8 | 4716 | 6 | US-10-190-435-17 Sequence 17, Appl  |
| 45 | 2113.6 | 85.8 | 4716 | 6 | US-10-190-305A-13 Sequence 13, Appl |

## ALIGNMENTS

RESULT 1  
US-09-899-575-31  
Sequence 31, Application US/0989575  
Publication No. US20030223961A1  
GENERAL INFORMATION:  
APPLICANT: Zur Megede, Jan  
APPLICANT: Barnett, Susan W.  
APPLICANT: Egnelbrecht, Susan  
APPLICANT: van Rensburg, Estrelita Janse  
TITLE OF INVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C  
FILE REFERENCE: P01631.102  
CURRENT APPLICATION NUMBER: US/09/899,575  
CURRENT FILING DATE: 2001-07-05  
PRIOR APPLICATION NUMBER: 09/475,704  
PRIOR FILING DATE: 1998-12-30  
NUMBER OF SEQ ID NOS: 135  
SOFTWARE: Patentin Ver. 2.0  
SEQ ID NO 31  
LENGTH: 2463  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: PR975YM  
US-09-899-575-31

Query Match 100.0%; Score 2463; DB 3; Length 2463;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2463; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

|    |     |                                                         |     |
|----|-----|---------------------------------------------------------|-----|
| QY | 1   | GTGAGCGCCAGCATGCGCGGCGCATGAGCGCCAGCGCCAGCATCTGATGAG     | 60  |
| DB | 1   | GTGAGCGCCAGCATGCGCGGCGCATGAGCGCCAGCGCCAGCATCTGATGAG     | 60  |
| QY | 61  | CGAGCACTTCAGAGGCGCCAGCGCATCATTAATGCTTCAACTGCGGCAAGAGG   | 120 |
| DB | 61  | CGAGCACTTCAGAGGCGCCAGCGCATCATTAATGCTTCAACTGCGGCAAGAGG   | 120 |
| QY | 121 | CACATGCGCGGCACTGCGCGCGCGCGCGAGAGAGGCTGTGAGAGTCCGCAAGAG  | 180 |
| DB | 121 | CACATGCGCGGCACTGCGCGCGCGCGCGAGAGAGGCTGTGAGAGTCCGCAAGAG  | 180 |
| QY | 181 | GGCCAGCAATGAGAGTGTGAGAGCGGCGAGCGGCACTTCTTCCGAGAGACTTGCC | 240 |
| DB | 181 | GGCCAGCAATGAGAGTGTGAGAGCGGCGAGCGGCACTTCTTCCGAGAGACTTGCC | 240 |



|    |      |                                                                    |      |
|----|------|--------------------------------------------------------------------|------|
| OY | 241  | TTCCCCCAGGGGAAAGCCCCCGAGATTTCCTCCAGCGAGCAAAACCCGGCCAAACAGCCCCCACC  | 300  |
| Db | 241  | TTCCCCCAGGGGAAAGCCCCCGAGATTTCCTCCAGCGAGCAAAACCCGGCCAAACAGCCCCCACC  | 300  |
| OY | 301  | AGCCGCGAGCTGCAAGTGCAGCGGCGACAAACCCCGCAGCGAGGCGCGCGCGAGCGCCAG       | 360  |
| Db | 301  | AGCCGCGAGCTGCAAGTGCAGCGGCGACAAACCCCGCAGCGAGGCGCGCGCGAGCGCCAG       | 360  |
| OY | 361  | GGCACCTTGAACTTCCCCCAATCAACCTGTGGCAGCGCCCCCTGTGTAGCATCAAGGTG        | 420  |
| Db | 361  | GGCACCTTGAACTTCCCCCAATCAACCTGTGGCAGCGCCCCCTGTGTAGCATCAAGGTG        | 420  |
| OY | 421  | GGCGGCGAGATCAAGAGAGCCCTGTGTGACACCGGCGCCGACAGAACCTGTGTGAGAGAG       | 480  |
| Db | 421  | GGCGGCGAGATCAAGAGAGCCCTGTGTGACACCGGCGCCGACAGAACCTGTGTGAGAGAG       | 480  |
| OY | 481  | ATGAGACCTGCCCCGCGAGATGAGAGGCCCAAGATGATCGGCGGCGCATCGGCGGCTTCAACAAG  | 540  |
| Db | 481  | ATGAGACCTGCCCCGCGAGATGAGAGGCCCAAGATGATCGGCGGCGCATCGGCGGCTTCAACAAG  | 540  |
| OY | 541  | GTGCGCGCAGTACGACCAAGATCTTGATCGAGATCTGCGGCAAGAGGCGCATCGGCAACCGTGC   | 600  |
| Db | 541  | GTGCGCGCAGTACGACCAAGATCTTGATCGAGATCTGCGGCAAGAGGCGCATCGGCAACCGTGC   | 600  |
| OY | 601  | CTGATTCGGCCCCCAACCCCGCTGAAACATCATCGGCGCGCAACATGCTGACCCAGTGTGGCTGCG | 660  |
| Db | 601  | CTGATTCGGCCCCCAACCCCGCTGAAACATCATCGGCGCGCAACATGCTGACCCAGTGTGGCTGCG | 660  |
| OY | 661  | ACCGTGAACCTTCCCCATCAGCCCCCATCGAGACCGTGCCTGTGACCTGAAACCCCGGCAATG    | 720  |
| Db | 661  | ACCGTGAACCTTCCCCATCAGCCCCCATCGAGACCGTGCCTGTGACCTGAAACCCCGGCAATG    | 720  |
| OY | 721  | GACGCGCCCCAAGGTGAAGCAGTGGCCCCCTGACCGAGAGAAAGATCAAGGCGCCTGACCGCGC   | 780  |
| Db | 721  | GACGCGCCCCAAGGTGAAGCAGTGGCCCCCTGACCGAGAGAAAGATCAAGGCGCCTGACCGCGC   | 780  |
| OY | 781  | ATCTGCGAGAGATGAGAGAGAGAGGCGCAAGATCAACAGATGTGGCCCCCGAGAGACCCCTTAC   | 840  |
| Db | 781  | ATCTGCGAGAGATGAGAGAGAGAGGCGCAAGATCAACAGATGTGGCCCCCGAGAGACCCCTTAC   | 840  |
| OY | 841  | AACACACCCCCGATGTTGCGCATCAAGAGAGAGAGCAGACCAAGTGGCGCAAGCTGGTGGAC     | 900  |
| Db | 841  | AACACACCCCCGATGTTGCGCATCAAGAGAGAGAGCAGACCAAGTGGCGCAAGCTGGTGGAC     | 900  |
| OY | 901  | TTTCGCGAGCTGAACCAAGCGCACCCAGAGACTTCTGTGGAGGTGCACTGTGGCATCCCCAC     | 960  |
| Db | 901  | TTTCGCGAGCTGAACCAAGCGCACCCAGAGACTTCTGTGGAGGTGCACTGTGGCATCCCCAC     | 960  |
| OY | 961  | CCCGCGCGCTGAGAGAGAGAGAGCGCTGACCGTGTGAGACGTGTGGCGAGCGCTTACTTC       | 1020 |
| Db | 961  | CCCGCGCGCTGAGAGAGAGAGAGCGCTGACCGTGTGAGACGTGTGGCGAGCGCTTACTTC       | 1020 |
| OY | 1021 | AGCGTGCCCTTGAGAGAGACTTCCGCAAGTACACCGGCTTCAACATCCCAAGCATCAAC        | 1080 |
| Db | 1021 | AGCGTGCCCTTGAGAGAGACTTCCGCAAGTACACCGGCTTCAACATCCCAAGCATCAAC        | 1080 |
| OY | 1081 | AACGAGACCCCGCGGATCCGCTACCAAGTACCAAGTCTGTGCCCGCAGGCTGAAAGGGCAGC     | 1140 |
| Db | 1081 | AACGAGACCCCGCGGATCCGCTACCAAGTACCAAGTCTGTGCCCGCAGGCTGAAAGGGCAGC     | 1140 |
| OY | 1141 | CCGAGCATCTTCCAGAGCAGCATGACCAAGATCTGTGAGCCCTTCCGCGCCCGCAACCCC       | 1200 |
| Db | 1141 | CCGAGCATCTTCCAGAGCAGCATGACCAAGATCTGTGAGCCCTTCCGCGCCCGCAACCCC       | 1200 |
| OY | 1201 | GAGATGTGATTTACCAAGGCCCCCTTGATCGTGGGCAAGGACCTGAGAAATGTGGCCAGAC      | 1260 |
| Db | 1201 | GAGATGTGATTTACCAAGGCCCCCTTGATCGTGGGCAAGGACCTGAGAAATGTGGCCAGAC      | 1260 |
| OY | 1261 | CGCGCTCAAGATGAGAGAGCTGTGCGCAGACCTGTGCGGTGGGGCTTCAACACCCCGCAC       | 1320 |
| Db | 1261 | CGCGCTCAAGATGAGAGAGCTGTGCGCAGACCTGTGCGGTGGGGCTTCAACACCCCGCAC       | 1320 |
| OY | 1321 | AAGAGACACAGAAAGAGCCCCCTTCTGTGTGATGTGGCTACAGACTTGACACCCCGACAAG      | 1380 |

|    |      |                                                                      |      |
|----|------|----------------------------------------------------------------------|------|
| Db | 1321 | AAAGAGACCAAGAAAGAGACCCCTTCTGTGGATTGGCTACAGCTGACCCGACAG               | 1380 |
| QY | 1381 | TGGAACGTGACGCCCATCTGAACCTGCAGAGAGAGACTGGAACCTGTAACGATCCAG            | 1440 |
| Db | 1381 | TGGACCGGTGACGCCCATCTGAACCTGCAGAGAGAGAGACTGGAACCTGTAACGATCCAG         | 1440 |
| QY | 1441 | AAAGCTGTGGGCAGAGCTGTAATTGGGCGACGCAAGATTACCCCGGATCTAAGGTGGCAG         | 1500 |
| Db | 1441 | AAAGCTGTGTGGGCAGAGCTGTAATTGGGCGACGCAAGATTACCCCGGATCTAAGGTGGCAG       | 1500 |
| QY | 1501 | CTGTGCAAGCTGTGCTGCGCGGCGCAAGGCGCTTGACCGACATCTGTGCGCCCTTGACCGAGAG     | 1560 |
| Db | 1501 | CTGTGCAAGCTGTGCTGCGCGGCGCAAGGCGCTTGACCGACATCTGTGCGCCCTTGACCGAGAG     | 1560 |
| QY | 1561 | GCCGAGCTGAGACTGCGCGGAGAACCGCGAGATCTCTGCGAGAGCCCTGTGACGAGGTGTAC       | 1620 |
| Db | 1561 | GCCGAGCTGAGACTGCGCGGAGAACCGCGAGATCTCTGCGAGAGCCCTGTGTAC               | 1620 |
| QY | 1621 | TACGACCCCGACAGAGACTGTGTGGCGGAGATCCAGAAACAGAGGCGACGACCACTGACCC        | 1680 |
| Db | 1621 | TACGACCCCGACAGAGACTGTGTGGCGGAGATCCAGAAACAGAGGCGACGACCACTGACCC        | 1680 |
| QY | 1681 | TACCAAGATCTACAGAGAGCCCTTGAGAAAGCTTGAAAGCCCGGACAGTACCGCAAGATGGCG      | 1740 |
| Db | 1681 | TACCAAGATCTACAGAGAGCCCTTGAGAAAGCTTGAAAGAGCCCGGACAGTACCGCAAGATGGCG    | 1740 |
| QY | 1741 | ACCGGCCCAACAAGAGACTGTGAGACAGCTGACCGAGGCGGTGACAGAAATCGACATGGAG        | 1800 |
| Db | 1741 | ACCGGCCCAACAAGAGACTGTGAGACAGCTGACCGAGGCGGTGAGAAAGATCGACATGGAG        | 1800 |
| QY | 1801 | AGCATCTGTGATCTGTGGGCGAGAGCCGCCAAGTTCCGCTCGCTCCATCCAGAAAGAGACTGG      | 1860 |
| Db | 1801 | AGCATCTGTGATCTGTGGGCGAGAGCCGCCAAGTTCCGCTCGCTCCATCCAGAAAGAGACTGG      | 1860 |
| QY | 1861 | GAGACCTGTGTGGAACCGACTACTGTGACAGGCCACCTGTGATCCCGAGTGGGAGATTGTGTAC     | 1920 |
| Db | 1861 | GAGACCTGTGTGGAACCGACTACTGTGAGAGGCCACCTGTGATCCCGAGTGGGAGATTGTGTAC     | 1920 |
| QY | 1921 | ACCCCCCTGTGTGAAGCTGTGTATCAAGCTGTGAGAGAGAGCCCATCTATCGAGCGCGAG         | 1980 |
| Db | 1921 | ACCCCCCTGTGTGAAGCTGTGTATCAAGCTGTGAGAGAGAGCCCATCTATCGAGCGCGAG         | 1980 |
| QY | 1981 | ACCTTCTACGTGAGACGCGCGCGCCACCGCGAGACCAAGATCTGGCAAGGCGCGCTACCTG        | 2040 |
| Db | 1981 | ACCTTCTACGTGAGACGCGCGCGCCACCGCGAGACCAAGATCTGGCAAGGCGCGCTACCTG        | 2040 |
| QY | 2041 | ACCGACCGGGGCGGCGAGAGATGTGTAGCCTTGACCGAGACCAACAACCGAGAACCGAG          | 2100 |
| Db | 2041 | ACCGACCGGGGCGGCGAGAGATGTGTAGCCTTGACCGAGACCAACAACCGAGAACCGAG          | 2100 |
| QY | 2101 | CTGCAAGGCGCATTCGACCTGTGCGCTTGCGAGACAGCGCGAGAGGTGAACATGTGTACCGAC      | 2160 |
| Db | 2101 | CTGCAAGGCGCATTCGACCTGTGCGCTTGCGAGACAGCGCGAGAGGTGAACATGTGTACCGAC      | 2160 |
| QY | 2161 | AGCGAGTACGCGCTGTGGGATCATCCAGGCGCGCTTGACAGAGCGAGAGCGAGCTGTGT          | 2220 |
| Db | 2161 | AGCGAGTACGCGCTGTGGGATCATCCAGGCGCGCTTGACAGAGCGAGAGCGAGCTGTGT          | 2220 |
| QY | 2221 | AAACCAAGATCAATCGAGACAGCTGTATCAAGAAAGAAAGGTGTACTGTAGCTGTGGTGGCCGCGC   | 2280 |
| Db | 2221 | AAACCAAGATCAATCGAGACAGCTGTGTATCAAGAAAGAAAGGTGTACTGTAGCTGTGGTGGCCGCGC | 2280 |
| QY | 2281 | CACAAAGGCGCATCGAGCGGACAGACAGATCGACAAGCTGTGTGACCAAGGCGATCCGCAAG       | 2340 |
| Db | 2281 | CACAAAGGCGCATCGAGCGGACAGACAGATCGACAAGCTGTGTGACCAAGGCGATCCGCAAG       | 2340 |
| QY | 2341 | GTGTGTTTCTGTGACCGGATCGATGTGGCGGCAATCTGTATCTACAGTTCATGTAGCGACTGT      | 2400 |
| Db | 2341 | GTGTGTTTCTGTGACCGGATCGATGTGGCGGCAATCTGTATCTACAGTTCATGTAGCGACTGT      | 2400 |
| QY | 2401 | TACGTGGGACAGCGCGCGCTTGAATGATTAAAGCTTCCCGGGGCTTGAACCGGTGAA            | 2460 |
| Db | 2401 | TACGTGGGACAGCGCGCGCTTGAATGATTAAAGCTTCCCGGGGCTTGAACCGGTGAA            | 2460 |

Db 2401 TACGTGGCAGCGCGCCCTAGATCATTAAGCTTCCGGGGCTAGCACCGGTGA 2460  
Qy 2461 TTC 2463  
Db 2461 TTC 2463

RESULT 2  
US-10-190-435-44  
; Sequence 44, Application US/10190435  
; Publication No. US20030143248A1  
; GENERAL INFORMATION:  
; APPLICANT: ZUR MEGEDE, Jan  
; APPLICANT: BARNETT, Susan W.  
; APPLICANT: LIAN, Ying  
; APPLICANT: ENGELBRECHT, Susan  
; APPLICANT: VAN RENSBURG, Betreilte J.  
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
; FILE REFERENCE: P18133.003 / 2302-18133  
; CURRENT APPLICATION NUMBER: US/10190,435  
; NUMBER OF SEQ ID NOS: 319  
; SOFTWARE: Patentin Ver. 2.0  
; SEQ ID NO 44  
; LENGTH: 2457  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: p2Polopt.YM\_C  
US-10-190-435-44

Query Match 99.7%; Score 2455.4; DB 6; Length 2457;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2456; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 GTCGACGCCACCATGCGCCGAGCCATGAGCCAGGCCACCGCCCAATCTGATGCG 60  
Db 1 GTCGACGCCACCATGCGCCGAGCCATGAGCCAGGCCACCGCCCAATCTGATGCG 60

Qy 61 CGGAGCACTTCAAGGGGCCCCCAAGCCGATCATCAAGTCTTCAACTGCGGCAAGAGGG 120  
Db 61 CGGAGCACTTCAAGGGGCCCCCAAGCCGATCATCAAGTCTTCAACTGCGGCAAGAGGG 120

Qy 121 CACATGCGCCGCAACTGCGCGGCCCCCGCAAGAGGGCTGTGGAAGTGCAGAGAG 180  
Db 121 CACATGCGCCGCAACTGCGCGGCCCCCGCAAGAGGGCTGTGGAAGTGCAGAGAG 180

Qy 181 GGCACCAAGTGAAGACTGCAACGAGCGCCAGGCCAACTTTCCGCGAGGACTTGGCC 240  
Db 181 GGCACCAAGTGAAGACTGCAACGAGCGCCAGGCCAACTTTCCGCGAGGACTTGGCC 240

Qy 241 TTTCCTCCAGGGCAAGGCGCCGCGAGTTCCCAAGGAGGAAACCGGCGCAACGCCCCAC 300  
Db 241 TTTCCTCCAGGGCAAGGCGCCGCGAGTTCCCAAGGAGGAAACCGGCGCAACGCCCCAC 300

Qy 241 TTTCCTCCAGGGCAAGGCGCCGCGAGTTCCCAAGGAGGAAACCGGCGCAACGCCCCAC 300  
Db 241 TTTCCTCCAGGGCAAGGCGCCGCGAGTTCCCAAGGAGGAAACCGGCGCAACGCCCCAC 300

Qy 301 AGCGGAGGCTGAGGAGGCGGCGGCAACCGCCGAGGAGGCGGCGCGCGAGAGCGCGAG 360  
Db 301 AGCGGAGGCTGAGGAGGCGGCGGCAACCGCCGAGGAGGCGGCGCGCGAGAGCGCGAG 360

Qy 361 GGCACCTGAACTTCCCGCAGATCACTCTGTGCGAGCGCCCTGTGATGACATCAAGTG 420  
Db 361 GGCACCTGAACTTCCCGCAGATCACTCTGTGCGAGCGCCCTGTGATGATCAAGTG 420

Qy 421 GCGGCGCAAGTCAAGAGGCGCTGTGAGCAACCGGCGCGCAACCGGCTGTGAGAGAG 480  
Db 421 GCGGCGCAAGTCAAGAGGCGCTGTGAGCAACCGGCGCGCAACCGGCTGTGAGAGAG 480

Qy 481 ATGAGCTGCGCGGCAAGTGAAGCCCAAGTGAATCGGCGCATCGCGCTTCATCAAG 540  
Db 481 ATGAGCTGCGCGGCAAGTGAAGCCCAAGTGAATCGGCGCATCGCGCTTCATCAAG 540

Qy 541 GTGGCCAGTAGCAACAGATCTGATGAGATCTGCGGCAAGAGGCCATCGGACCGTG 600

Db 541 GTGGCCAGTAGCAACAGATCTGATGAGATCTGCGGCAAGAGGCCATCGGACCGTG 600  
Qy 601 CTGATGCGCCCAACCGCGTGAACATCATCGGCGGCAACATGCTGAACCGAGCTGGGCTGC 660  
Db 601 CTGATGCGCCCAACCGCGTGAACATCATCGGCGGCAACATGCTGAACCGAGCTGGGCTGC 660

Qy 661 ACCCTGAACCTTCCCGCATGAGCGCCCATGAGACCGTGCCTGTGAAGCTGAAGCCCGGAC 720  
Db 661 ACCCTGAACCTTCCCGCATGAGCGCCCATGAGACCGTGCCTGTGAAGCTGAAGCCCGGAC 720

Qy 721 GACGCGCCCAAGTGAAGAGTGGCCCTGACCGAGAGAGAGATCAAGGCTGTGACCGCC 780  
Db 721 GACGCGCCCAAGTGAAGAGTGGCCCTGACCGAGAGAGAGATCAAGGCTGTGACCGCC 780

Qy 781 ATCTCGAGAGATGAGAGAGGCGCAAGATCAACCAAGATGCGCCCGGAGAACCCCTTAC 840  
Db 781 ATCTCGAGAGATGAGAGAGGCGCAAGATCAACCAAGATGCGCCCGGAGAACCCCTTAC 840

Qy 841 AACACCCCGTGTGGCATCAAGAGAGGACAGACCCAGTGGCGCAAGCTGTGAGAC 900  
Db 841 AACACCCCGTGTGGCATCAAGAGAGGACAGACCCAGTGGCGCAAGCTGTGAGAC 900

Qy 901 TTCCGCGAGCTGAACAAGGCAACCGAGACTTCTGAGAGTGCAGCTGGGCAATCCGCCAC 960  
Db 901 TTCCGCGAGCTGAACAAGGCAACCGAGACTTCTGAGAGTGCAGCTGGGCAATCCGCCAC 960

Qy 961 CCCGCGCGCTGAAGAGAGAGAGCGTGAACCGTGTGAGAGTGGCGCAACCGCTTCTTC 1020  
Db 961 CCCGCGCGCTGAAGAGAGAGAGCGTGAACCGTGTGAGAGTGGCGCAACCGCTTCTTC 1020

Qy 1021 AACGTGCGCTGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1080  
Db 1021 AACGTGCGCTGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1080

Qy 1081 AACGAGACCCCGGAGATCCGCTACAGATCAAGTGTCTCCGAGGCTGGAAGGCGAGC 1140  
Db 1141 AACGAGACCCCGGAGATCCGCTACAGATCAAGTGTCTCCGAGGCTGGAAGGCGAGC 1140

Qy 1141 CCCAGCATTTTCAAGAGAGAGATGACCAAGATCTTGAAGCCCTTCCGCGCGGCAACCCC 1200  
Db 1141 CCCAGCATTTTCAAGAGAGAGATGACCAAGATCTTGAAGCCCTTCCGCGCGGCAACCCC 1200

Qy 1201 GAGATGTGATCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1260  
Db 1201 GAGATGTGATCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1260

Qy 1261 GCGGCAAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1320  
Db 1261 GCGGCAAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1320

Qy 1321 AAGAGACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1380  
Db 1321 AAGAGACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1380

Qy 1381 TGAACCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1440  
Db 1381 TGAACCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1440

Qy 1441 AAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1500  
Db 1441 AAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1500

Qy 1501 CTGTGCAAGTGTGTGCGCGGCGCAAGGCGCTTGAAGCAATGCTGCTGCTGAGAGAG 1560  
Db 1501 CTGTGCAAGTGTGTGCGCGGCGCAAGGCGCTTGAAGCAATGCTGCTGCTGAGAGAG 1560

Qy 1561 GCGGAGCTGAGAGTGTGCGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1620  
Db 1561 GCGGAGCTGAGAGTGTGCGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1620

Qy 1621 TACGACCCCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1680

```

Db 1621 TACGACCCGAGCAAGCCTGTGACCGAGATCCAGAAAGAGGCGCACAGCCAGTGGAC 1680
Qy 1681 TACGACATCTACAGAGAGCCCTTCAAGAACTGAAAGACCGGAGATAGCCAAATGGGC 1740
Db 1681 TACGACATCTACAGAGAGCCCTTCAAGAACTGAAAGACCGGAGATAGCCAAATGGGC 1740
Qy 1741 ACCGCCCAACCAACGAGCGTGAAGCAAGCTGACCGAGCCGTGCAGAGAATGCCATGGAG 1800
Db 1741 ACCGCCCAACCAACGAGCGTGAAGCAAGCTGACCGAGCCGTGCAGAGAATGCCATGGAG 1800
Qy 1801 AGCATCGTATCTGGGGGCAAGACCCCAAGTTCGGCCCTGCCATCCAGAGAGACCTGG 1860
Db 1801 AGCATCGTATCTGGGGGCAAGACCCCAAGTTCGGCCCTGCCATCCAGAGAGACCTGG 1860
Qy 1861 GAGACCTGTGAGACCGACTAGTCTGAGAGGCGCACTGGATCCCGAGTGGAGTTCTGTAA 1920
Db 1861 GAGACCTGTGAGACCGACTAGTCTGAGAGGCGCACTGGATCCCGAGTGGAGTTCTGTAA 1920
Qy 1921 ACCCCCCCTGTGTGAAGCTGTGTACAGAGCTGAGAGAGAGCCCATCATCGGCGCGAG 1980
Db 1921 ACCCCCCCTGTGTGAAGCTGTGTACAGAGCTGAGAGAGAGCCCATCATCGGCGCGAG 1980
Qy 1981 ACCTTCTACGTGAGAGCGGCGCGCAACCGGAGACCAAGATCGGCAAGCGCGCTAGCTG 2040
Db 1981 ACCTTCTACGTGAGAGCGGCGCGCAACCGGAGACCAAGATCGGCAAGCGCGCTAGCTG 2040
Qy 2041 ACCGACCGGGGCGGCGAGAGATCGTGAAGCTGACCGAGACCAACCAAGAGACCGAG 2100
Db 2041 ACCGACCGGGGCGGCGAGAGATCGTGAAGCTGACCGAGACCAACCAAGAGACCGAG 2100
Qy 2101 CTGCAAGGCGATCACTGAGCTGCGCTGTGAGAGACAGCGGCGAGAGTGAATCTGTGAC 2160
Db 2101 CTGCAAGGCGATCACTGAGCTGCGCTGTGAGAGACAGCGGCGAGAGTGAATCTGTGAC 2160
Qy 2161 AGCCAGTACGCTGTGAGAGCGGCGCGCAACCGGAGACCAAGATCGGCAAGCGCGCTAG 2220
Db 2161 AGCCAGTACGCTGTGAGAGCGGCGCGCAACCGGAGACCAAGATCGGCAAGCGCGCTAG 2220
Qy 2221 AACGAGATCATGAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTGGGTGCGCGCC 2280
Db 2221 AACGAGATCATGAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTGGGTGCGCGCC 2280
Qy 2281 CACAAGGCGATCGGCGGCAACGAGAGATCGACAGAGCTGTGAGAGAGCGCATCCGCAAG 2340
Db 2281 CACAAGGCGATCGGCGGCAACGAGAGATCGACAGAGCTGTGAGAGAGCGCATCCGCAAG 2340
Qy 2341 GTGCTGTCTGTGAGAGCGCATGATGAGCGGCGATGATCTACAGTACATGAGAGAGCTG 2400
Db 2341 GTGCTGTCTGTGAGAGCGCATGATGAGCGGCGATGATCTACAGTACATGAGAGAGCTG 2400
Qy 2401 TACGTTGGGAGAGGCGGCGCTGAGATCGATTAAAGCTTCCCGGGGCTAGACCGGCT 2457
Db 2401 TACGTTGGGAGAGGCGGCGCTGAGATCGATTAAAGCTTCCCGGGGCTAGACCGGCT 2457

```

RESULT 3  
US-10-130-305A-38

```

; Sequence 38, Application US/10190305A
; Publication No. US20030198621A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan
; APPLICANT: LIAN, Ying
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
; FILE REFERENCE: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USBS THERIOF
; CURRENT APPLICATION NUMBER: US/10/190,305A
; NUMBER OF SEQ ID NOS: 93
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 38
; LENGTH: 2457
; TYPE: DNA

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; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: p2polopt.YM_C
US-10-130-305A-38
Query Match 99.7%; Score 2455.4; DB 6; Length 2457;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2456; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Qy 1 GTGACGCGCACCAATGCGCGAGGCGCATGAGCCAGGCGCACAGCGCAACATCTGATGAG 60
Db 1 GTGACGCGCACCAATGCGCGAGGCGCATGAGCCAGGCGCACAGCGCAACATCTGATGAG 60
Qy 61 CGAGCAACTTTCAGAGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGCG 120
Db 61 CGAGCAACTTTCAGAGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGCG 120
Qy 121 CACATCGCGCGCAACTGCGCGCGCGCGCGCGCAAGAGGCGTCTGGAAGTGGCGCAAGAG 180
Db 121 CACATCGCGCGCAACTGCGCGCGCGCGCGCGCAAGAGGCGTCTGGAAGTGGCGCAAGAG 180
Qy 181 GGGCAACGAGTGAAGAGACTGACCGAGGCGCAAGCTTCTTCCGCGAGAGACTGCGC 240
Db 181 GGGCAACGAGTGAAGAGACTGACCGAGGCGCAAGCTTCTTCCGCGAGAGACTGCGC 240
Qy 241 TTCCCGCAAGGCGCAAGGCGCGGAGTTCCTCCAGAGAGCAAGAACCGGCGCAAGCGCCAC 300
Db 241 TTCCCGCAAGGCGCAAGGCGCGGAGTTCCTCCAGAGAGCAAGAACCGGCGCAAGCGCCAC 300
Qy 301 AGCGCGAGCTGCAAGTGTGCGGCGCAACCTCCGCGAGAGGCGCGCGCGCGAGCGCCAG 360
Db 301 AGCGCGAGCTGCAAGTGTGCGGCGCAACCTCCGCGAGAGGCGCGCGCGCGAGCGCCAG 360
Qy 361 GGGACCCCTGAACTTCCCGCAATCACTGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCG 420
Db 361 GGGACCCCTGAACTTCCCGCAATCACTGAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCG 420
Qy 421 GCGGCGCGATCAAGAGGCGCGCTGTGAGACAGCGGCGCGAGCAACCGTGTGAGAGAG 480
Db 421 GCGGCGCGATCAAGAGGCGCGCTGTGAGACAGCGGCGCGAGCAACCGTGTGAGAGAG 480
Qy 481 ATGAGCTGTGCGCGCAAGTGAAGCGCCCAAGATGTGCGGCGCATCGCGCTTCAATCAAG 540
Db 481 ATGAGCTGTGCGCGCAAGTGAAGCGCCCAAGATGTGCGGCGCATCGCGCTTCAATCAAG 540
Qy 541 GTGCGCGAGTACAGACAGATCTGTGAGAGTCTGCGGCAAGAGCCCATGGGACCGTG 600
Db 541 GTGCGCGAGTACAGACAGATCTGTGAGAGTCTGCGGCAAGAGCCCATGGGACCGTG 600
Qy 601 CTGATCGGCG 660
Db 601 CTGATCGGCG 660
Qy 661 ACCCTGAACTTCCCATCATGCGCCCATGAGACCGTGTGCGCGCGCGCGCGCGCGCGCG 720
Db 661 ACCCTGAACTTCCCATCATGCGCCCATGAGACCGTGTGCGCGCGCGCGCGCGCGCGCG 720
Qy 721 GAGCGCGCGCAAGTGAAGCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 780
Db 721 GAGCGCGCGCAAGTGAAGCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 780
Qy 781 ATTCGCGAGAGTGAAGAGAGAGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 840
Db 781 ATTCGCGAGAGTGAAGAGAGAGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 840
Qy 841 AACACCCCGGTGTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900
Db 841 AACACCCCGGTGTGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900
Qy 901 TTCCGCGAGCTGAACAGCGCACCGAGAGCTTCTGAGAGTGTGAGAGTGTGAGAGTGTGAG 960
Db 901 TTCCGCGAGCTGAACAGCGCACCGAGAGCTTCTGAGAGTGTGAGAGTGTGAGAGTGTGAG 960

```

|    |      |                                                                  |      |
|----|------|------------------------------------------------------------------|------|
| OY | 961  | CCGCGCGGCGCTGAAAGAAAGAAAGAGGTGAACGCTGTGGAAGCTGGGCGACGCTTACTTC    | 1020 |
| Db | 961  | CCCGCTGGGCTGTGAAGAAAGAAAGAGGTGAACGCTGTGTGGAAGCTGGGCGACGCTTACTTC  | 1020 |
| OY | 1021 | AGCGTGCCTCCGTGACGAGGACTTCCGCAATGACACGCGCTTCAACATCCCGACATCAAC     | 1080 |
| Db | 1021 | AGCGTGCCTCCGTGACGAGGACTTCCGCAATGACACGCGCTTCAACATCCCGACATCAAC     | 1080 |
| OY | 1081 | AAACGAGACCCCGCGCATCCGCTACCAAGTACAAAGTGTGCTCCCAAGGGCTGGAAGGGCAAC  | 1140 |
| Db | 1081 | AAACGAGACCCCGCGCATCCGCTACCAAGTACAAAGTGTGCTCCCAAGGGCTGGAAGGGCAAC  | 1140 |
| OY | 1141 | CCCGAGCATCTTCCAGACACAGATGACCAAAATCTGGAAGCCCTTCCGCGCGCGCAACCCCG   | 1200 |
| Db | 1141 | CCCGAGCATCTTCCAGACACAGATGACCAAAATCTGGAAGCCCTTCCGCGCGCGCAACCCCG   | 1200 |
| OY | 1201 | GAGATCTGATCTACCAAGGCCCCCTGTACGTGGGCGACGACCTTGAGATCGGCGACAC       | 1260 |
| Db | 1201 | GAGATCTGATCTACCAAGGCCCCCTGTACGTGGGCGACGACCTTGAGATCGGCGACAC       | 1260 |
| OY | 1261 | CGCGCCAAAGATCGAGAGCTGCGCAACACTGTGCTGGGCGCTTCAACACCCCGAC          | 1320 |
| Db | 1261 | CGCGCCAAAGATCGAGAGCTGCGCAACACTGTGCTGGGCGCTTCAACACCCCGAC          | 1320 |
| OY | 1321 | AAAGAAACACCAAGAGAGCCCCCTTCTGTGTGATGAGGCTTACAGAGCTGACACCCGCAAG    | 1380 |
| Db | 1321 | AAAGAAACACCAAGAGAGCCCCCTTCTGTGTGATGAGGCTTACAGAGCTGACACCCGCAAG    | 1380 |
| OY | 1381 | TGGAACGTGCGAGCCCATGTAGCTGCTCCGAGAAAGAGAGCTGGAACCGTGAACGATCTCAG   | 1440 |
| Db | 1381 | TGGAACGTGCGAGCCCATGTAGCTGCTCCGAGAAAGAGAGCTGGAACCGTGAACGATCTCAG   | 1440 |
| OY | 1441 | AAAGCTGTGGCGAAGCTGAACCTGGGCGACCGCAATCTACCCCGCATCAAGGTGCGCGAG     | 1500 |
| Db | 1441 | AAAGCTGTGGCGAAGCTGAACCTGGGCGACCGCAATCTACCCCGCATCAAGGTGCGCGAG     | 1500 |
| OY | 1501 | CTGTGCAAGCTGTCTGCGGGCGGCCAAGGCCCTCTGACCGACATCTGTGCCCTGACCCGAGAG  | 1560 |
| Db | 1501 | CTGTGCAAGCTGTCTGCGGGCGGCCAAGGCCCTCTGACCGACATCTGTGCCCTGACCCGAGAG  | 1560 |
| OY | 1561 | GCCGAGCTGGAAGCTGGCGCGAGAACCGCGAGATCTGTGCGCGAGCCGCTGCAACGCGTGTAC  | 1620 |
| Db | 1561 | GCCGAGCTGGAAGCTGGCGCGAGAACCGCGAGATCTGTGCGCGAGCCGCTGCAACGCGTGTAC  | 1620 |
| OY | 1621 | TACGACCCCGACAGAGACCTGTGTGGCGCGAGATTCAGAAAGCAAGGGCGACGACAGTGAAC   | 1680 |
| Db | 1621 | TACGACCCCGACAGAGACCTGTGTGGCGCGAGATTCAGAAAGCAAGGGCGACGACAGTGAAC   | 1680 |
| OY | 1681 | TACCAAGATCTACCAAGAGCCCTTCAAGAACTGTGAAGACCGGCAAGTACGCCAGATATCGC   | 1740 |
| Db | 1681 | TACCAAGATCTACCAAGAGCCCTTCAAGAACTGTGAAGACCGGCAAGTACGCCAGATATCGC   | 1740 |
| OY | 1741 | ACCGGCCCAACCAAGAGGTGAAGAGCTGAACCGAGGCGCTGCGAGAAAGATCGCATGTGAG    | 1800 |
| Db | 1741 | ACCGGCCCAACCAAGAGGTGAAGAGCTGAACCGAGGCGCTGCGAGAAAGATCGCATGTGAG    | 1800 |
| OY | 1801 | AGCATCTGTGATCTGGGGGCAAGACCCCAAGTTCCGCTTGCCATTCAGAAAGAGACTTGG     | 1860 |
| Db | 1801 | AGCATCTGTGATCTGGGGGCAAGACCCCAAGTTCCGCTTGCCATTCAGAAAGAGACTTGG     | 1860 |
| OY | 1861 | GAGACCTGTGTGACCGGACTACCTGAGAGGCGCAACTGTGAATCCCGAGTGGAACTTGTGAAC  | 1920 |
| Db | 1861 | GAGACCTGTGTGACCGGACTACCTGAGAGGCGCAACTGTGAATCCCGAGTGGAACTTGTGAAC  | 1920 |
| OY | 1921 | ACCGCGCGCGCTGTGAGGTGTGTATCAAGCTGAGAGAGAGGCCATCATGTGGGCGCGAG      | 1980 |
| Db | 1921 | ACCGCGCGCGCTGTGAGGTGTGTATCAAGCTGAGAGAGAGGCCATCATGTGGGCGCGAG      | 1980 |
| OY | 1981 | ACCTTCTACGTGAGCGGCGCGCGCAACCGCGAGACCAAGATCTGGCAAGGCGGCTTACGTTG   | 2040 |
| Db | 1981 | ACCTTCTACGTGAGCGGCGCGCGCGCAACCGCGAGACCAAGATCTGGCAAGGCGGCTTACGTTG | 2040 |
| OY | 2041 | ACCGACCGGGGCGCGCGCAAGATCTGTGAACCTTGACCGAGACCAACCAAGAACCGAG       | 2100 |

|    |      |                                                                   |       |
|----|------|-------------------------------------------------------------------|-------|
| Db | 2041 | ACCCAGCGGGCCGGCAGAAAGATGTGAAGCTTGACCAGAACCAACCAAGAACCCGAG         | 21000 |
| Oy | 2101 | CTGCAAGCCCATCCAGCTGGCCCTTCAGAGACAGCCGGCAGAGGTGAACATCGTGAACCGAC    | 21606 |
| Db | 2101 | CTGCAAGCCCATCCAGCTGGCCCTTCAGAGACAGCCGGCAGAGGTGAACATCGTGAACCGAC    | 21606 |
| Oy | 2161 | AGCCAGTACGCGCCCTGGGCATTCATCAGGCCCCAGCCCGACAAAGACGAGAGCGAGCTGGTG   | 22200 |
| Db | 2161 | AGCCAGTACGCGCCCTGGGCATTCATCAGGCCCCAGCCCGACAAAGACGAGAGCGAGCTGGTG   | 22200 |
| Oy | 2221 | AACCAAGTCATCGAGCAGCTGATCAAGAGAGAGAAAGGTGTAACCTGAGTGGGTCCCGCC      | 22806 |
| Db | 2221 | AACCAAGTCATCGAGCAGCTGATCAAGAGAGAGAAAGGTGTAACCTGAGTGGGTCCCGCC      | 22806 |
| Oy | 2281 | CACAAAGGCATTCGGCCGGCCGACAAAGACAGATCGACAAAGCTGGAGCAAGAGGCATCCGCAAG | 23400 |
| Db | 2281 | CACAAAGGCATTCGGCCGGCCGACAAAGACAGATCGACAAAGCTGGAGCAAGAGGCATTCGCAAG | 23400 |
| Oy | 2341 | GTGCGTTTCCTGGAACGGCATCGATGAGCGGCGCATCGTATCTACAGTACATGAGACGACCTTG  | 24000 |
| Db | 2341 | GTGCGTTTCCTGGAACGGCATCGATGAGCGGCGCATCGTATCTACAGTACATGAGACGACCTTG  | 24000 |
| Oy | 2401 | TACGTGGCAGACGGCGGCGCCTTAGATTCGATTTAAAGCTTCCCGGGCTTAGACACCGGT      | 2457  |
| Db | 2401 | TACGTGGCAGACGGCGGCGCCTTAGATTCGATTTAAAGCTTCCCGGGCTTAGACACCGGT      | 2457  |

RESULT 4  
US-09-899-575-30

; Sequence 30, Application US/09899575  
; Publication No. US20030223961A1

; GENERAL INFORMATION:

APPLICANT: Zur Megede, Jan

APPLICANT: Barnett, Susan

APPLICANT: Egnedreht, S van Benschuid.

TITL.E OF INVENTION: POLYNU

TITLE OF INVENTION: POLYPYRROLONE

FILE REFERENCE: PP01631.10

**CURRENT APPLICATION NUMBER**

CURRENT FILING DATE: 2001

PRIOR APPLICATION NUMBER: 1000 13

NUMBER OF SEQ ID NOS: 135  
PRIOR FILING DATE: 1999-12

SOFTWARE: PatentIn Ver. 2.0

DOE ID NO 30

LENGTH: 2469

TYPE: DNA

**ORGANISM:** Artificial Sequ

FEATURE:

| NO  | OTHER | INFORMATION: | DESCR  |
|-----|-------|--------------|--------|
| 100 | 00    | 000          | 575 30 |

US-09-899-575-30

Query Match 99.

Best Local Similarity 99.

Matches 2460; Conservative

1 GTGACGCCACCATC

[illegible]

DB I G I C G A C G C C A C C A A

61 CGCAGCAACTTCACG

\_\_\_\_\_

Db 61 CGCAGCACTTCAAC

QY 121 CACATCGCCCGCAAC

\_\_\_\_\_

D5 121 CACATCGCCCGCAAC

181 GGGCAACCAGATGAA

[illegible]

Db 181 GGGCACCAGATGAAC

QY 241 TTCCCCAGGCAAGGCCCGGAGTTCCCGAGGAGCAAGCCGCGCCACAGGCCCAACC 300  
Db 241 TTCCCCAGGCAAGGCCCGGAGTTCCCGAGGAGCAAGCCGCGCCACAGGCCCAACC 300  
QY 301 AGCGCGAGCTGCAAGGTGCGCGGCAACAACCCCGAGCGAGGCGCGGCGGAGCGCCAG 360  
Db 301 AGCGCGAGCTGCAAGGTGCGCGGCAACAACCCCGAGCGAGGCGCGGCGGAGCGCCAG 360  
QY 361 GGACCCCTGAATCTTCCCGAATCACTTGTGGAGCGGCCCTGTGTAGATCAAGGTG 420  
Db 361 GGACCCCTGAATCTTCCCGAATCACTTGTGGAGCGGCCCTGTGTAGATCAAGGTG 420  
QY 421 GCGCGCCAGATCAAGAGGCCCTGTGACAACCGCGCGCAACAACCTGTGTAGAGAG 480  
Db 421 GCGCGCCAGATCAAGAGGCCCTGTGACAACCGCGCGCAACAACCTGTGTAGAGAG 480  
QY 481 ATGAGCTGCGCGGAGTGAAGCCCAAGATGATCGCGGCAATCGCGCTTCAACAG 540  
Db 481 ATGAGCTGCGCGGAGTGAAGCCCAAGATGATCGCGGCAATCGCGCTTCAACAG 540  
QY 541 GTGGCCAGTACGACGACGATCTGTATGAGATCTGCGGCAAGAGGCCATCGGCAACG 600  
Db 541 GTGGCCAGTACGACGACGATCTGTATGAGATCTGCGGCAAGAGGCCATCGGCAACG 600  
QY 601 CTGATCGGCCCCACCCCGTGAACATCATCGCGGCAACATGTGACCCAGCTGGCTGC 660  
Db 601 CTGATCGGCCCCACCCCGTGAACATCATCGCGGCAACATGTGACCCAGCTGGCTGC 660  
QY 661 ACCCTGAATCTTCCCATAGCCCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCGGCATG 720  
Db 661 ACCCTGAATCTTCCCATAGCCCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCGGCATG 720  
QY 721 GACCGCCCCAAGTGAACGATGCGCCCTGAACCGAGGAAGATCAAGCCCTCAACGCGC 780  
Db 721 GACCGCCCCAAGTGAACGATGCGCCCTGAACCGAGGAAGATCAAGCCCTCAACGCGC 780  
QY 781 ATTCGCGAGAGATGAGAGAGGCAAGATCAACCAAGATCGGCCCGAGAACCCCTAC 840  
Db 781 ATTCGCGAGAGATGAGAGAGGCAAGATCAACCAAGATCGGCCCGAGAACCCCTAC 840  
QY 841 AACACCCCGTGTTCGCATCAAGAGAGAGACAGACCAAGTGGCGCACTGGTGGAC 900  
Db 841 AACACCCCGTGTTCGCATCAAGAGAGAGACAGACCAAGTGGCGCACTGGTGGAC 900  
QY 901 TTCCGCGAGCTGAACAAGCGACCCAGGACTTGTGGAGGTGAGCTGGGATCCCCAC 960  
Db 901 TTCCGCGAGCTGAACAAGCGACCCAGGACTTGTGGAGGTGAGCTGGGATCCCCAC 960  
QY 961 CCCGCGGCTGAAGAGAGAGAGAGCTGACCGGTGAGCTGGAGCGGCACTGCTTTC 1020  
Db 961 CCCGCGGCTGAAGAGAGAGAGAGCTGACCGGTGAGCTGGAGCGGCACTGCTTTC 1020  
QY 1021 AGCGTGCCTGGAAGAGACTTCCGCAAGTACACCGCTTCAACCATCCAGCATCAAC 1080  
Db 1021 AGCGTGCCTGGAAGAGACTTCCGCAAGTACACCGCTTCAACCATCCAGCATCAAC 1080  
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Db 1081 AACGAGATCCCGGAGATCCGCTACCAAGTCAACGTGCTGCCCAAGGCTGAGAGGCGAC 1140  
QY 1141 CCCGAGATCTTCCAGAGAGAGAGAGAGTCCGAGGCGCTTCCGAGCGCGCAACCC 1200  
Db 1141 CCCGAGATCTTCCAGAGAGAGAGAGAGTCCGAGGCGCTTCCGAGCGCGCAACCC 1200  
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Db 1201 GAGATCTGATCTACCA-----GACCCCGCTGTACGTGGGAGGCACTGAGATCGGC 1254  
QY 1255 CAGACCGCGGCAAGATGAGAGGCTGCGCAAGCACTGTGCGTGGGCTTCAACCAAC 1314  
Db 1255 CAGACCGCGGCAAGATGAGAGGCTGCGCAAGCACTGTGCGTGGGCTTCAACCAAC 1314  
QY 1261 CAGACCGCGGCAAGATGAGAGGCTGCGCAAGCACTGTGCGTGGGCTTCAACCAAC 1320  
Db 1261 CAGACCGCGGCAAGATGAGAGGCTGCGCAAGCACTGTGCGTGGGCTTCAACCAAC 1320

QY 1315 CCGACAAAGACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1374  
Db 1321 CCGACAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1380  
QY 1375 GACAAAGTGAACCGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1434  
Db 1381 GACAAAGTGAACCGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1440  
QY 1435 ATCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1494  
Db 1441 ATCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1500  
QY 1495 CCGCAGCTGTGCAAGCTGCTGCGGCGGCAAGAGCCCTGACCCGACATCTGTGCTTCAAC 1554  
Db 1501 CCGCAGCTGTGCAAGCTGCTGCGGCGGCAAGAGCCCTGACCCGACATCTGTGCTTCAAC 1560  
QY 1555 GAGAGAGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1614  
Db 1561 GAGAGAGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1620  
QY 1615 GTGTACTACGACCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1674  
Db 1621 GTGTACTACGACCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1680  
QY 1675 TGAACCTACAGATCTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1734  
Db 1681 TGAACCTACAGATCTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1740  
QY 1735 ATGGGACCGGCGCACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1794  
Db 1741 ATGGGACCGGCGCACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1800  
QY 1795 ATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1854  
Db 1801 ATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1860  
QY 1855 ACCCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1914  
Db 1861 ACCCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1920  
QY 1915 GTGAACACCCCGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1974  
Db 1921 GTGAACACCCCGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1980  
QY 1975 GCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2034  
Db 1981 GCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2040  
QY 2035 TACGTGACCGAGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2094  
Db 2041 TACGTGACCGAGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2100  
QY 2095 ACCGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2154  
Db 2101 ACCGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2160  
QY 2155 ACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2214  
Db 2161 ACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2220  
QY 2215 CTGTGTAACAGATCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2274  
Db 2221 CTGTGTAACAGATCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2280  
QY 2275 CCGGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2334  
Db 2281 CCGGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2340  
QY 2335 CGCAAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2394  
Db 2341 CGCAAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2400  
QY 2395 GACCTGTACGTGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2454

Db 2401 GACCTGACGTGGGAGGCGCGCCCTAGATGATTAAGCTTCCGGGGCTAGCAC 2460  
 QY 2455 GGTGAATTC 2463  
 Db 2461 GGTGAATTC 2469

## RESULT 5

US-09-899-575-32  
 ; Sequence 32, Application US/09899575  
 ; Publication No. US20030223961A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Zur Megede, Jan  
 ; APPLICANT: Barnett, Susan W.  
 ; APPLICANT: Egnelbrecht, Susan  
 ; APPLICANT: van Rensburg, Betreiltha Janse  
 ; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
 ; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
 ; FILE REFERENCE: PP01631.102  
 ; CURRENT APPLICATION NUMBER: US/09/899,575  
 ; CURRENT FILING DATE: 2001-07-05  
 ; PRIOR APPLICATION NUMBER: 09/475,704  
 ; PRIOR FILING DATE: 1999-12-30  
 ; NUMBER OF SEQ ID NOS: 135  
 ; SOFTWARE: Patent Ver. 2.0  
 ; SEQ ID NO 32  
 ; LENGTH: 2457  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: PR975YMM  
 US-09-899-575-32

Query Match 98.9%; Score 2436.2; DB 3; Length 2457;  
 Best Local Similarity 99.6%; Pred. No. 0;  
 Matches 2454; Conservative 0; Mismatches 3; Indels 6; Gaps 1;

QY 1 GTGACGCGCACCATGCGCGGCGCATGAGCCAGGCGCCAGCCAGCCCAATCTCTGATGAG 60  
 Db 1 GTGACGCGCACCATGCGCGGCGCATGAGCCAGGCGCCAGCCAGCCCAATCTCTGATGAG 60  
 QY 61 CGGAGCACTTCAAGGGGCGCCCAAGGCGCATCATCAAGTCTTCAATGCGCGCAAGAGGGC 120  
 Db 61 CGGAGCACTTCAAGGGGCGCCCAAGGCGCATCATCAAGTCTTCAATGCGCGCAAGAGGGC 120  
 QY 121 CACATGCGCGCGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 180  
 Db 121 CACATGCGCGCGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 180  
 QY 181 GGGCACAAGTGAAGGACTGCAACGAGCGCCAGGCGCACTTCTTCCGCGGAGACTGAGC 240  
 Db 181 GGGCACAAGTGAAGGACTGCAACGAGCGCCAGGCGCACTTCTTCCGCGGAGACTGAGC 240  
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 Db 241 TTCCCGCAGGCGCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 300  
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 Db 301 AGCGCGAGCTGAGGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 360  
 QY 361 GGGACCTGAACTTCCCGCAGATCAACCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCG 420  
 Db 361 GGGACCTGAACTTCCCGCAGATCAACCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCG 420  
 QY 421 GGGCGCGAGTCAAGAGGCGCTGTGAGACAACCGCGCGCGCGCGCGCGCGCGCGCGCGCG 480  
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 QY 481 ATGAGCTTGGCGCGCAAGTGAAGCCCAAGATGATGCGCGCGCGCGCGCGCGCGCGCGCG 540  
 Db 481 ATGAGCTTGGCGCGCAAGTGAAGCCCAAGATGATGCGCGCGCGCGCGCGCGCGCGCGCG 540

QY 541 GTGGCGCAGTACGACCAAGATCTGATGAGATCTGCGCGCAAGAGGCCATCGGCAACCGTG 600  
 Db 541 GTGGCGCAGTACGACCAAGATCTGATGAGATCTGCGCGCAAGAGGCCATCGGCAACCGTG 600  
 QY 601 CTGATCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 660  
 Db 601 CTGATCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 660  
 QY 661 ACCCTGAACCTTCCCGCATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 720  
 Db 661 ACCCTGAACCTTCCCGCATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 720  
 QY 721 GACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 780  
 Db 721 GACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 780  
 QY 781 ATCTCGAGAGATGAGAGAGGCGCAAGATCAACCAAGATCGGCGCGCGCGCGCGCGCG 840  
 Db 781 ATCTCGAGAGATGAGAGAGGCGCAAGATCAACCAAGATCGGCGCGCGCGCGCGCGCG 840  
 QY 841 AACACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 900  
 Db 841 AACACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 900  
 QY 901 TTCCCGCGAGTGAACAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 960  
 Db 901 TTCCCGCGAGTGAACAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 960  
 QY 961 CCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1020  
 Db 961 CCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1020  
 QY 1021 AGCGTCCCGTGAAGAGGACTTCCGCAAGTACCGGCGCGCGCGCGCGCGCGCGCGCG 1080  
 Db 1021 AGCGTCCCGTGAAGAGGACTTCCGCAAGTACCGGCGCGCGCGCGCGCGCGCGCGCG 1080  
 QY 1081 AACGAGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1140  
 Db 1081 AACGAGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1140  
 QY 1141 CCAGCATCTTCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1200  
 Db 1141 CCAGCATCTTCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1200  
 QY 1201 GAGATCGTGAATCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1260  
 Db 1201 GAGATCGTGAATCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1260  
 QY 1261 CGCGCGAGATGAGAGGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1320  
 Db 1261 CGCGCGAGATGAGAGGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1320  
 QY 1321 AAGGAGCAACAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1380  
 Db 1321 AAGGAGCAACAGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1380  
 QY 1381 TGGACCGTCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1440  
 Db 1381 TGGACCGTCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1440  
 QY 1441 AAGCTGTGAGGCAAGTGAACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1500  
 Db 1441 AAGCTGTGAGGCAAGTGAACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1500  
 QY 1495 CTGTGAGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1554  
 Db 1495 CTGTGAGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1554  
 QY 1561 GCGGAGCTGAGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1620  
 Db 1561 GCGGAGCTGAGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1620  
 QY 1555 GCGGAGCTGAGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1614  
 Db 1555 GCGGAGCTGAGAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1614







QY 847 CCCGTTTCCCATCAAGAAAGAGACCAAGTGGCCGCAAGTGTGACCTTCCG 906  
 DB 841 CCCGTTTCCCATCAAGAAAGAGACCAAGTGGCCGCAAGTGTGACCTTCCG 900  
 QY 907 GAGCTGAACAGAGCCGACCAAGGACTTCTGGAGAGTGCAGCTGGGATCCCCACCCGCC 966  
 DB 901 GAGCTGAACAGAGCCGACCAAGGACTTCTGGAGAGTGCAGCTGGGATCCCCACCCGCC 960  
 QY 967 GAGCTGAACAGAGCCGACCAAGGACTTCTGGAGAGTGCAGCTGGGATCCCCACCCGCC 1026  
 DB 961 GAGCTGAACAGAGCCGACCAAGGACTTCTGGAGAGTGCAGCTGGGATCCCCACCCGCC 1020  
 QY 1027 CCCCTGAACAGAGCTTCCGCAAGTACACCGCTTCAACATCCCAAGATCAACAGAG 1086  
 DB 1021 CCCCTGAACAGAGCTTCCGCAAGTACACCGCTTCAACATCCCAAGATCAACAGAG 1080  
 QY 1087 ACCCGGCGATCCGCTACCAAGTACCAAGTCCGAGCCGCGAGGCTGGAGAGGAGCCGAGC 1146  
 DB 1081 ACCCGGCGATCCGCTACCAAGTACCAAGTCCGAGCCGCGAGGCTGGAGAGGAGCCGAGC 1140  
 QY 1147 ATCTTCAAGAGAGATGACCAAGATCTTGAAGCCCTTCCGCGCCGCAACCCGAGATC 1206  
 DB 1141 ATCTTCAAGAGAGATGACCAAGATCTTGAAGCCCTTCCGCGCCGCAACCCGAGATC 1200  
 QY 1207 GTGATCTACCA-----GGCCCCCTGTATCTGTGGAGAGCCGCTTGAAGATGGCCAGC 1260  
 DB 1201 GTGATCTACCAAGTACGATGACCAAGTCTGTGGAGAGCCGCTTGAAGATGGCCAGC 1260  
 QY 1261 CCGCGCAAGATGAGAGAGTGGGCAAGACCTGTGGCGCTGGAGGCTTCAACCCCGAGC 1320  
 DB 1261 CCGCGCAAGATGAGAGAGTGGGCAAGACCTGTGGCGCTGGAGGCTTCAACCCCGAGC 1320  
 QY 1321 AAGAGCAACAGAGAGGCCCCCTTCTGTGGATGGGCTACAGAGTGCACCCGCAAG 1380  
 DB 1321 AAGAGCAACAGAGAGGCCCCCTTCTGTGGATGGGCTACAGAGTGCACCCGCAAG 1380  
 QY 1381 TGGACCGTGCAGCCCATCGAGCTGCCGAGAGAGAGAGTGGACCTGAAACGATCCAG 1440  
 DB 1381 TGGACCGTGCAGCCCATCGAGCTGCCGAGAGAGAGAGTGGACCTGAAACGATCCAG 1440  
 QY 1441 AAGCTGTGGGCAAGCTGAACTGGGCGACCGAGATCTACCCGCGCATCAAGGTGGCCAG 1500  
 DB 1441 AAGCTGTGGGCAAGCTGAACTGGGCGACCGAGATCTACCCGCGCATCAAGGTGGCCAG 1500  
 QY 1501 CTGTGCAAGCTGTGGCGCGCGCCGCAAGGCTTGAACGATCTGGCCCTGACCGAGAG 1560  
 DB 1501 CTGTGCAAGCTGTGGCGCGCGCCGCAAGGCTTGAACGATCTGGCCCTGACCGAGAG 1560  
 QY 1561 GCCGAGCTGAGAGTGGCCGAGAACCGCGAGATCTTGGCGAGCCGCTGCACGGCTGTAC 1620  
 DB 1561 GCCGAGCTGAGAGTGGCCGAGAACCGCGAGATCTTGGCGAGCCGCTGCACGGCTGTAC 1620  
 QY 1621 TACGACCCGCAAGAGACTGTGTGGCGAGATCTCAAGAGAGAGGCGCAACGACGAGAGC 1680  
 DB 1621 TACGACCCGCAAGAGACTGTGTGGCGAGATCTCAAGAGAGAGGCGCAACGACGAGAGC 1680  
 QY 1681 TACGACCCGCAAGAGACTGTGTGGCGAGATCTCAAGAGAGAGGCGCAACGACGAGAGC 1740  
 DB 1681 TACGACCCGCAAGAGACTGTGTGGCGAGATCTCAAGAGAGAGGCGCAACGACGAGAGC 1740  
 QY 1741 ACCGCGCAACCAAGAGAGTGAAGAGCTGACCGAGGCGCTGCAAGAGATCGCAGTGG 1800  
 DB 1741 ACCGCGCAACCAAGAGAGTGAAGAGCTGACCGAGGCGCTGCAAGAGATCGCAGTGG 1800  
 QY 1801 AGCATGTGTATCTGGGCGCAAGACCCCAAGTTCCGCTGGCCATCCAGAGAGAGAGCCTGG 1860  
 DB 1801 AGCATGTGTATCTGGGCGCAAGACCCCAAGTTCCGCTGGCCATCCAGAGAGAGAGCCTGG 1860  
 QY 1861 GAGACCTGTGAGACCGACTACTGGCAGGCGCACTGATCCCGAGTGGAGTTCTGTAC 1920  
 DB 1861 GAGACCTGTGAGACCGACTACTGGCAGGCGCACTGATCCCGAGTGGAGTTCTGTAC 1920  
 QY 1921 ACCCGCCCTGTGAGAGCTGTGTACAGCTGAGAGAGAGCCCATCTGCGCGCAG 1980

DB 1921 ACCCGCCCTGTGAGAGCTGTGTACAGCTGAGAGAGAGCCCATCTGCGCGCAG 1980  
 QY 1981 ACTTCTACGTGAGACCGCGCGCCCAACCGAGAGACCAAGATCTGCAAGCCGCTACG 2040  
 DB 1981 ACTTCTACGTGAGACCGCGCGCCCAACCGAGAGACCAAGATCTGCAAGCCGCTACG 2040  
 QY 2041 ACCGACCGGCGCGCGAGAGATGTGAGCTTGAACCGAGACCAACCAAGAGAGCCAG 2100  
 DB 2041 ACCGACCGGCGCGCGAGAGATGTGAGCTTGAACCGAGACCAACCAAGAGAGCCAG 2100  
 QY 2101 CTGAGAGCATTCAGAGCTGGCCCTGAGAGACCGGCAACGAGTGAACATGTCAGAC 2160  
 DB 2101 CTGAGAGCATTCAGAGCTGGCCCTGAGAGACCGGCAACGAGTGAACATGTCAGAC 2160  
 QY 2161 AGCCAGTACCGCTGGGATCATTCAGAGCCCGCAAGAGAGAGAGAGAGAGAGAG 2220  
 DB 2161 AGCCAGTACCGCTGGGATCATTCAGAGCCCGCAAGAGAGAGAGAGAGAGAGAG 2220  
 QY 2221 AACGATCATTCAGAGCTGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2280  
 DB 2221 AACGATCATTCAGAGCTGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2280  
 QY 2281 CAGAGGAGATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2340  
 DB 2281 CAGAGGAGATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2340  
 QY 2341 GTGCTTCTTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2400  
 DB 2341 GTGCTTCTTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2400  
 QY 2401 TACGTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2457  
 DB 2401 TACGTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2457

RESULT 7  
 US-10-190-305A-39  
 / Sequence 39, Application US/10190305A  
 / Publication No. US20030198621A1  
 / GENERAL INFORMATION:  
 / APPLICANT: ZUR MEGEDE, Jan  
 / APPLICANT: BARRETT, Susan  
 / APPLICANT: LIAN, Ying  
 / TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR  
 / TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
 / FILE REFERENCE: 2302-18702 / 18702.002  
 / CURRENT APPLICATION NUMBER: US/10/190,305A  
 / CURRENT FILING DATE: 2002-07-05  
 / NUMBER OF SEQ ID NOS: 93  
 / SOFTWARE: Patentin Ver. 2.0  
 / SEQ ID NO 39  
 / LENGTH: 2457  
 / TYPE: DNA  
 / ORGANISM: Artificial Sequence  
 / FEATURE:  
 / OTHER INFORMATION: Description of Artificial Sequence: p2polopt\_C  
 US-10-190-305A-39

Query Match 98.7%; Score 2430.2; DB 6; Length 2457;  
 Best Local Similarity 99.6%; Pred. No. 0;  
 Matches 2448; Conservative 0; Mismatches 3; Indels 6; Gaps 1;  
 QY 7 GCCACATGAGCGAGGCGATGAGCCAGGCTACCAAGCGCAACATCTGATGACGCCAGC 66  
 DB 1 GCCACATGAGCGAGGCGATGAGCCAGGCTACCAAGCGCAACATCTGATGAGGCCAGC 60  
 QY 67 AACTTCAAGGCGCCCAAGGAGATCATCAAGTGTTCATCTGGGCGAAGAGAGGCGCATC 126  
 DB 61 AACTTCAAGGCGCCCAAGGAGATCATCAAGTGTTCATCTGGGCGAAGAGAGGCGCATC 120  
 QY 127 GCCCGAAGTGGCGGCGCCCGCGAAGAGAGGCTGTGAGAGTGGCGAAGAGAGGCGCAC 186

|    |      |                                                              |      |
|----|------|--------------------------------------------------------------|------|
| Db | 121  | GCCTGCAACTGCGCGGCCCCCGGCAAGAAAGGCTGCTGAAATGCGGCAAGAGGCGCAC   | 180  |
| QY | 187  | CAGATGAAGAGACTGCAACCGAGCGCCAGGCGCAACTTCTTCGCGAAGACCTTGCTTCC  | 246  |
| Db | 181  | CAGATGAAGAGACTGCAACCGAGCGCCAGGCGCAACTTCTTCGCGAAGACCTTGCTTCC  | 240  |
| QY | 247  | CAGGCGAAGGCCCCGGAGTTTCCCGACGAGCAAAACCGCGCAAAAGCCCCACAGCGCG   | 306  |
| Db | 241  | CAGGCGAAGGCCCCGGAGTTTCCCGACGAGCAAAACCGCGCAAAAGCCCCACAGCGCG   | 300  |
| QY | 307  | GAGCTGCAAGTTCGCGGCGCAACAACCCCGACAGAGCGCGGCGCGACCGGCGACAC     | 366  |
| Db | 301  | GAGCTGCAAGTTCGCGGCGCAACAACCCCGACAGAGCGCGGCGCGACCGGCGACAC     | 360  |
| QY | 367  | CTGAACCTTCCCGCAGATCAACCTGTGTGACGCGCCCCCTGTGTAGCATCAAGGTGGCG  | 426  |
| Db | 361  | CTGAACCTTCCCGCAGATCAACCTGTGTGACGCGCCCCCTGTGTAGCATCAAGGTGGCG  | 420  |
| QY | 427  | CAGATCAAGAGGCGCTTGCTGCAACCGCGCGCGACACCTGTGCTGAGAGATGAGC      | 486  |
| Db | 421  | CAGATCAAGAGGCGCTTGCTGCAACCGCGCGCGACACCTGTGCTGAGAGATGAGC      | 480  |
| QY | 487  | CTGCGCGGCAAGTGGAAAGCCCAAGATGATCGCGCGCATCGCGGCTTCATCAAGGTGGC  | 546  |
| Db | 481  | CTGCGCGGCAAGTGGAAAGCCCAAGATGATCGCGCGCATCGCGGCTTCATCAAGGTGGC  | 540  |
| QY | 547  | CAGTACGACCAAGATCTGTATCGAGATCTGCGGCAAGAAAGGCCATCGGACCGTGTATC  | 606  |
| Db | 541  | CAGTACGACCAAGATCTGTATCGAGATCTGCGGCAAGAAAGGCCATCGGACCGTGTATC  | 600  |
| QY | 607  | GCGCCCAACCCCGTGAACTCATTCGCGCGCAACATGCTGACCTAGCTGGCTGCACCTG   | 666  |
| Db | 601  | GCGCCCAACCCCGTGAACTCATTCGCGCGCAACATGCTGACCTAGCTGGCTGCACCTG   | 660  |
| QY | 667  | AACCTTCCCATCAGGCCCATGCGAACCGCGCCCGTGAAGCTGAACCCGCGCATGGAACG  | 726  |
| Db | 661  | AACCTTCCCATCAGGCCCATGCGAACCGCGCCCGTGAAGCTGAACCCGCGCATGGAACG  | 720  |
| QY | 727  | CCCAAGTGAAGCAGTGGCCCTCTGACCGAGAGAGAGATCAAGGCCCTGACCGCATCTGC  | 786  |
| Db | 721  | CCCAAGTGAAGCAGTGGCCCTCTGACCGAGAGAGAGATCAAGGCCCTGACCGCATCTGC  | 780  |
| QY | 787  | GAGAGATGAGAGAGAGGCGCAAGATCAACCAAGATCGCCCCGAGAACCTCTTACAACAC  | 846  |
| Db | 781  | GAGAGATGAGAGAGAGGCGCAAGATCAACCAAGATCGCCCCGAGAACCTCTTACAACAC  | 840  |
| QY | 847  | CCCGGTTCGCGCATGAAGAAAGAGACAGACCAAGTGGCGGAACTGTGTGACTTCCG     | 906  |
| Db | 841  | CCCGGTTCGCGCATGAAGAAAGAGACAGACCAAGTGGCGGAACTGTGTGACTTCCG     | 900  |
| QY | 907  | GAGCTGAACAAGCGGACCCAGGACTTCTGTGAGAGTGCAGCTGGGATCCCCAGCCCCGC  | 966  |
| Db | 901  | GAGCTGAACAAGCGGACCCAGGACTTCTGTGAGAGTGCAGCTGGGATCCCCAGCCCCGC  | 960  |
| QY | 967  | GCGCTGAAGAAAGAGAGCGGTGACCGTGTGACGTGTGAGCGGACGCTTACTTCAGCGTG  | 1026 |
| Db | 961  | GCGCTGAAGAAAGAGAGCGGTGACCGTGTGACGTGTGAGCGGACGCTTACTTCAGCGTG  | 1020 |
| QY | 1027 | CCCGCTGAGAGAGACTTCCGCGCAAGTACACCGGCTTACCAATCCCCAGCATCAACACAG | 1086 |
| Db | 1021 | CCCGCTGAGAGAGACTTCCGCGCAAGTACACCGGCTTACCAATCCCCAGCATCAACACAG | 1080 |
| QY | 1087 | ACCCCGGACATCGGCTACCAAGTACAAACGTCGCGCCAGGCGCTGGAAGGCGACGCCACG | 1146 |
| Db | 1081 | ACCCCGGACATCGGCTACCAAGTACAAACGTCGCGCCAGGCGCTGGAAGGCGACGCCACG | 1144 |
| QY | 1147 | ATCTTCCAGAGCAGATGACCAAGATCTGTGAGCCCTTCCGCGCCGCAACCCCGAGATC   | 1206 |
| Db | 1141 | ATCTTCCAGAGCAGATGACCAAGATCTGTGAGCCCTTCCGCGCCGCAACCCCGAGATC   | 1200 |
| QY | 1207 | GTCATCTTAC-----GGCCCCCTGTATCGTGGGAGCGACCTTGAAGTGGCGACGAC     | 1266 |
| Db | 1201 | GTCATCTTACCAAGTACATGACCACTGTATCGTGGGAGCGACCTTGAAGTGGCGACGAC  | 1260 |

|    |      |                                                                     |      |
|----|------|---------------------------------------------------------------------|------|
| QY | 1261 | CGCGCAAGATCGAGAGAGCTGCGCAGACCTTCTGCGCTGCGGCTTCAACACCCCGAC           | 1320 |
| Db | 1261 | CGCGCAAGATCGAGAGAGCTGCGCAGACCTTCTGCGCTGCGGCTTCAACACCCCGAC           | 1320 |
| QY | 1321 | AAGAAAGCACGAAGAGAGAGCCCCCTTCTGCTGAGATGGGCTACAGAGCTGCACCCCGACAAG     | 1380 |
| Db | 1321 | AAGAAAGCACGAAGAGAGAGCCCCCTTCTGCTGAGATGGGCTACAGAGCTGCACCCCGACAAG     | 1380 |
| QY | 1381 | TGAGACCGTGCAGCCCATCGAGCTGCGCGAGAAAGAGAGAGCTGAGACCTGTGAACGACATCCAG   | 1440 |
| Db | 1381 | TGAGACCGTGCAGCCCATCGAGCTGCGCGAGAAAGAGAGAGCTGAGACCGTGTGAACGACATCCAG  | 1440 |
| QY | 1441 | AAAGCTGTGGCGAAGCTGAACTTGGGCGACGCCAGATCTACCCCGGCTATCAAGGTGCGCCAG     | 1500 |
| Db | 1441 | AAAGCTGTGGCGAAGCTGAACTTGGGCGCGACGCCAGATCTACCCCGGCTATCAAGGTGCGCCAG   | 1500 |
| QY | 1501 | CTGTGTGCAAGCTGTGCGCGCGCGCGCAAGGCGCTTGACCCGATCGTGGCCCTTGACCGAGAGAG   | 1560 |
| Db | 1501 | CTGTGTGCAAGCTGTGCGCGCGCGCGCAAGGCGCTTGACCCGATCGTGGCCCTTGACCGAGAGAG   | 1560 |
| QY | 1561 | GCCGAGCTGTGAGCTGTGCGCGAGAACCGGCGAGATCTCTGCGCGAGCCCGTGCACGCGGTGTAC   | 1620 |
| Db | 1561 | GCCGAGCTGTGAGCTGTGCGCGAGAACCGGCGAGATCTCTGCGCGAGCCCGTGTGCACGCGGTGTAC | 1620 |
| QY | 1621 | TACGACCCCGACGAAGAGACTGTGTGGCGGATTCGAAGACGAGGCGACGACAGTGTGAC         | 1680 |
| Db | 1621 | TACGACCCCGACGAAGAGACTGTGTGGCGGATTCGAAGACGAGGCGACGACAGTGTGAC         | 1680 |
| QY | 1681 | TACCAAGATCTACCGAGAGCCCTTCAAGAACCTTGAAACCGGCGAGATACGCGCAAGATGTGAC    | 1740 |
| Db | 1681 | TACCAAGATCTACCGAGAGCCCTTCAAGAACCTTGAAAGACCGGCGAGATACGCGCAAGATGTGAC  | 1740 |
| QY | 1741 | ACCGCGCCACCAAGAGAGCTGAAAGCAGCTGTGACCGAGGCGGTGCAGAAAGATCGCATGTGAG    | 1800 |
| Db | 1741 | ACCGCGCCACCAAGAGAGCTGAAAGCAGCTGTGACCGAGGCGGTGCAGAAAGATCGCATGTGAG    | 1800 |
| QY | 1801 | AGCATCGTGAATCTGTGGGCGAAGACCCCGCAAGTTCCGCTGCGCATTCAGAAAGAGACTGTG     | 1860 |
| Db | 1801 | AGCATCGTGAATCTGTGGGCGAAGACCCCGCAAGTTCCGCTGCGCATTCAGAAAGAGACTGTG     | 1860 |
| QY | 1861 | GAGACTGTGTGTGAGACCGACTTACCTGGCAGGCGCACCTGTGATCCCGAGTGGAGATTGTGTGAC  | 1920 |
| Db | 1861 | GAGACTGTGTGTGAGACCGACTTACCTGGCAGGCGCACCTGTGATCCCGAGTGGAGATTGTGTGAC  | 1920 |
| QY | 1921 | ACCCCCCGCTGTGTGAGCTGTGGTACCAAGCTGTGAGAGAGAGAGCCATCATGTGCGGCGCGAG    | 1980 |
| Db | 1921 | ACCCCCCGCTGTGTGTGAGCTGTGGTACCAAGCTGTGAGAGAGAGAGCCATCATGTGCGGCGCGAG  | 1980 |
| QY | 1981 | ACCTTCTACGTGTGACCGGCGCGCGCACCGCGAGAGCAAGATTCGGCAAGGCGCGCTTACGCTG    | 2040 |
| Db | 1981 | ACCTTCTACGTGTGAGCGGCGCGCGCACCGCGAGAGCAAGATTCGGCAAGGCGCGCTTACGCTG    | 2040 |
| QY | 2041 | ACCGACCGGGGCGCGCGAGAGATGTGTGAGCTGTGACCGAGACCAACCAAGAGAGCGAG         | 2100 |
| Db | 2041 | ACCGACCGGGGCGCGCGAGAGATGTGTGAGCTGTGACCGAGACCAACCAAGAGAGCGAG         | 2100 |
| QY | 2101 | CTGCAAGGCGCATTCAGCTGTGCGCTGCGAGAGACGCGGCGAGCGAGGTGAACATGTGTGACGAG   | 2160 |
| Db | 2101 | CTGCAAGGCGCATTCAGCTGTGCGCTGCGAGAGACGCGGCGAGCGAGGTGAACATGTGTGACGAG   | 2160 |
| QY | 2161 | AGCCAGTATCGGCTGTGGGCGATCATCCAGGCGCAGGCCCAAGAGCGAGAGCGAGCTGTGTG      | 2220 |
| Db | 2161 | AGCCAGTATCGGCTGTGGGCGATCATCCAGGCGCAGGCCCAAGAGCGAGAGCGAGCTGTGTG      | 2220 |
| QY | 2221 | AAACAGATCATTCGAGCAGCTGATCAAGAGAGAGAGGTGTACCTGTGACTGTGGTGTGCGCGC     | 2280 |
| Db | 2221 | AAACAGATCATTCGAGCAGCTGATCAAGAGAGAGAGGTGTACCTGTGACTGTGGTGTGCGCGC     | 2280 |
| QY | 2281 | CACAAAGGCGATTCGGCGGCGCAAGAGCAGATTCGACAGCTGTGTGAGCAAGGGCATCCGCAAG    | 2340 |
| Db | 2281 | CACAAAGGCGATTCGGCGGCGCAAGAGCAGATTCGACAGCTGTGTGAGCAAGGGCATCCGCAAG    | 2340 |

| Qy   | Db                                                            | Qy   | Db                                                            |
|------|---------------------------------------------------------------|------|---------------------------------------------------------------|
| 2341 | GTGCTGTTCCCGACGCGATGATGAGGGCGGATCCGTGATCTACACAGTGCATGAGACACTG | 2401 | TACGTGGGACACGGCGCGGCTTACGATTCGATTTAAAAGCTTCCCGGGGCTACGACACGGT |
| 2341 | GTGCTGTTCCCGACGCGATGATGAGGGCGGATCCGTGATCTACACAGTGCATGAGACACTG | 2401 | TACGTGGGACACGGCGCGGCTTACGATTCGATTTAAAAGCTTCCCGGGGCTACGACACGGT |

## RESULT 8

```

US-10-190-435-43
; Sequence 43, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Batreelta J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: PP18133.003 / 2302-18133
; CURRENT APPLICATION NUMBER: US/1010190,435
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 43
; LENGTH: 2445
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: p2Pol.opt.YMM_C
US-10-190-435-43

```

|                            |       |              |          |             |
|----------------------------|-------|--------------|----------|-------------|
| Query Match                | 98.4% | Score 2422.6 | DB 6     | Length 2445 |
| Best Local Similarity      | 99.6% | Pred. No. 0  |          |             |
| Matches 2441; Conservative | 0     | Mismatches 4 | Indels 6 | Gaps 1      |

QY 7 GCCACCAATGGCCGAGGCCCATAGGCCGACACACACGCCAACAATCTGATGTGAGGGCGAC 66  
 Db 1 GCCACCAATGGCCGAGGCCCATAGGCCGACACACACGCCAACAATCTGATGTGAGGGCGAC 60  
 QY 67 AACTTCAGAGGGGCCCAAGGCGCATCATCAAGTCTTCAACTGCGGGCAAGAGGGCCACATC 126  
 Db 61 AACTTCAGAGGGGCCCAAGGCGCATCATCAAGTCTTCAACTGCGGGCAAGAGGGCCACATC 120  
 QY 127 GCCCGCAACTGCGCGGCCCGCCCGCAAGAGGGCTGTGAAAGTGCGCCAAGAGAGGCCAC 186  
 Db 121 GCCCGCAACTGCGCGGCCCGCCCGCAAGAGGGCTGTGAAAGTGCGCCAAGAGAGGCCAC 180  
 QY 187 CAGATGAAGAGACTGCACCGAGCGCCAGGSCCACTTTCTTCGCGAGGACTGTGGCTTCC 246  
 Db 181 CAGATGAAGAGACTGCACCGAGCGCCAGGSCCACTTTCTTCGCGAGGAGCTGTGGCTTCC 240  
 QY 247 CAGGGGCAAGCCCCCGAGTTCCCAACGAGCAAGAACCCGGGCCAACAGGCCCAACGCGCG 306  
 Db 241 CAGGGGCAAGCCCCCGAGTTCCCAACGAGCAAGAACCCGGGCCAACAGGCCCAACGCGCG 300  
 QY 307 GAGCTGCAGAGTGGCGGCGACAAACCCCGAGGAGAGCGCGCCGACAGGCCAGGGCACC 366  
 Db 301 GAGCTGCAGAGTGGCGGCGACAAACCCCGAGGAGAGCGCGCCGACAGGCCAGGGCACC 360  
 QY 367 CTGAACCTTCCCCCAGATCAACCTGTGTGGCAGCGCCCCCTGATGAGCATCAAGTGTGGCG 426  
 Db 361 CTGAACCTTCCCCCAGATCAACCTGTGTGGCAGCGCCCCCTGATGAGCATCAAGTGTGGCG 420  
 QY 427 CAGATCAAGAGGCCCTTGTGTGACACCGGCGCTGATGACACCGTGTGTGAGAGATGAGC 486  
 Db 421 CAGATCAAGAGGCCCTTGTGTGACACCGGCGCTGATGACACCGTGTGTGAGAGATGAGC 480  
 QY 487 CTGCCCGGCAATGAGAAACCAAGATGATGGCGGCAATGGCGGCTTCAATCAAGATGCGC 546  
 Db 481 CTGCCCGGCAATGAGAAACCAAGATGATGGCGGCAATGGCGGCTTCAATCAAGATGCGC 540

|    |      |                                                                  |      |
|----|------|------------------------------------------------------------------|------|
| OY | 547  | CAGTACGACCAAGATCTCGATTCGAGATCTTGCGGCAAGAAAGGCAGATCGGCACCGCTGATC  | 605  |
| Db | 541  | CAGTACGACCAAGATCTCGATTCGAGATCTTGCGGCAAGAAAGGCAGATCGGCACCGCTGATC  | 600  |
| OY | 607  | GGCCCCAACCCTCGGAACATCATCGGCGCGCAACAATGCTGACCCAGCTGCGCTGACCCCTG   | 665  |
| Db | 601  | GGCCCCAACCCTCGGAACATCATCGGCGCGCAACAATGCTGACCCAGCTGCGCTGACCCCTG   | 660  |
| OY | 667  | AACTTCCCATCAGCCCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGCATGACGGC       | 726  |
| Db | 661  | AACTTCCCATCAGCCCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGCATGACGGC       | 720  |
| OY | 727  | CCCAAGGTGAAGCATGTGCCCCCTTGAACGAGAGAAAGATCAAGGCCCCGATCAACGATCTGC  | 786  |
| Db | 721  | CCCAAGGTGAAGCATGTGCCCCCTTGAACGAGAGAAAGATCAAGGCCCCGATCAACGATCTGC  | 780  |
| OY | 787  | GAGAGATGTGAAGAGAGAGGCGCAATCAACCAAGATCGGCCCCCGAAGAACCCCTTACAACAC  | 846  |
| Db | 781  | GAGAGATGTGAAGAGAGAGGCGCAATCAACCAAGATCGGCCCCCGAAGAACCCCTTACAACAC  | 840  |
| OY | 847  | CCCGTGTTCGCATCAAGAGAGAGACAGACCAAGTGGCGCAAGCTGTGAACTTCCG          | 906  |
| Db | 841  | CCCGTGTTCGCATCAAGAGAGAGACAGACCAAGTGGCGCAAGCTGTGAACTTCCG          | 900  |
| OY | 907  | GAGCTGAACAGACCGAACCCAGACCTTCTTGGAAGGTGCAAGCTGTGGCATCTCCCAACCCGCG | 966  |
| Db | 901  | GAGCTGAACAGACCGAACCCAGACCTTCTTGGAAGGTGCAAGCTGTGGCATCTCCCAACCCGCG | 960  |
| OY | 967  | GGCTTGAAGAGAGAGAGAGGCGTACCGTGTGGAACGTTGGGCGAGCGCTTACTTGACGCTG    | 1026 |
| Db | 961  | GGCTTGAAGAGAGAGAGAGGCGTACCGTGTGGAACGTTGGGCGAGCGCTTACTTGACGCTG    | 1022 |
| OY | 1027 | CCCCGTGACGAGACTTCCGCAAGTACACCGCTTCAACATCCCAGCATCAACAACGAG        | 1086 |
| Db | 1021 | CCCCGTGACGAGACTTCCGCAAGTACACCGCTTCAACATCCCAGCATCAACAACGAG        | 1082 |
| OY | 1087 | ACCCCGGCATCCGCTACCAGTACCAAGTGTGCGCCCGAGGCTGGAGGGCAGCTCCAGC       | 1146 |
| Db | 1081 | ACCCCGGCATCCGCTACCAAGTACCAAGTGTGCGCCCGAGGCTGGAGGGCAGCTCCAGC      | 1144 |
| OY | 1147 | ATCTTCCAGACGACGATGACCAATCTTGAAGCCCTTCCGCGCCGCGAACC CGSAGATC      | 1206 |
| Db | 1141 | ATCTTCCAGACGACGATGACCAATCTTGAAGCCCTTCCGCGCCGCGAACC CGSAGATC      | 1202 |
| OY | 1207 | GTGATCTTACAGGCCCCCTGTGACGTGGGCAAGCACTTGAGATGTGGCAGACCCGCGC       | 1266 |
| Db | 1201 | GTGATCTTACAGGCCCCCTGTGACGTGGGCAAGCACTTGAGATGTGGCAGACCCGCGC       | 1262 |
| OY | 1267 | AAGATCGAGAGACTTCGAGACCACTGTGCGCTGCGGCTTCAACACCCCGACAAGAG         | 1326 |
| Db | 1261 | AAGATCGAGAGACTTCGAGACCACTGTGCGCTGCGGCTTCAACACCCCGACAAGAG         | 1322 |
| OY | 1327 | CACCAAGAGAGCCCCCTTCTGTGAGATGGGCTACAGCTGCAACCCCGACAAGTGGACC       | 1386 |
| Db | 1321 | CACCAAGAGAGCCCCCTTCTGTGAGATGGGCTACAGCTGCAACCCCGACAAGTGGACC       | 1378 |
| OY | 1387 | GTGCGACCCCATGAGACTGCGCGAGAGAGAGAGCTGACCGTGAACGACATCCAGAAAGCTG    | 1446 |
| Db | 1375 | GTGCGACCCCATGAGACTGCGCGAGAGAGAGAGCTGACCGTGAACGACATCCAGAAAGCTG    | 1438 |
| OY | 1447 | GTGCGCAAGCTGAATCTGGGCGACCGCAGATCTAACCCCGCATCAAGTGTGGCCAGCTGTGC   | 1506 |
| Db | 1435 | GTGCGCAAGCTGAATCTGGGCGACCGCAGATCTAACCCCGCATCAAGTGTGGCCAGCTGTGC   | 1498 |
| OY | 1507 | AAGCTGTGCGCGCGCGCAAGGCGCTGACCGACATCTGTGCCCTTGAACCGAGAGGCGCGAG    | 1566 |
| Db | 1495 | AAGCTGTGCGCGCGCGCGCAAGGCGCTGACCGACATCTGTGCCCTTGAACCGAGAGGCGCGAG  | 1558 |
| OY | 1567 | CTGAGAGCTGGCGGAGAACCGGAGATCTGCGCGAGGCGCGTGCAGCGGCTGTACTACAGAC    | 1626 |
| Db | 1555 | CTGAGAGCTGGCGGAGAACCGGAGATCTGCGCGAGGCGCGTGCAGCGGCTGTACTACAGAC    | 1618 |

|                                                                            |      |                                                                |      |
|----------------------------------------------------------------------------|------|----------------------------------------------------------------|------|
| QY                                                                         | 1627 | CCGACGAAGGACCTGGTGGCCGGATATCGAAGAAGCAGGGCCAGACCACTGGACCTAACCG  | 1686 |
| Db                                                                         | 1615 | CCGACGAAGGACCTGGTGGCCGGATATCGAAGAAGCAGGGCCAGACCACTGGACCTAACCG  | 1674 |
| QY                                                                         | 1687 | ATTCAACGAGAGCCCTTGAAGAACCTTGAAAGCCGGCAAGTACGCGCAAGATCGCACCGC   | 1746 |
| Db                                                                         | 1675 | ATTCAACGAGAGCCCTTGAAGAACCTTGAAAGCCGGCAAGTACGCGCAAGATCGCACCGC   | 1734 |
| QY                                                                         | 1747 | CACACCAACGACGTGAGAGAGCTGACCGAGGCCGTGTCAGAGATGCGCATGAGAGCATC    | 1806 |
| Db                                                                         | 1735 | CACACCAACGACGTGAGAGAGCTGACCGAGGCCGTGTCAGAGATGCGCATGAGAGCATC    | 1794 |
| QY                                                                         | 1807 | GTCATCTGGGGCAAGACCCCAAGTTTCGCGCTGGCCATTCAGAGAGAGACCTGGGAGAC    | 1866 |
| Db                                                                         | 1795 | GTCATCTGGGGCAAGACCCCAAGTTTCGCGCTGGCCATTCAGAGAGAGACCTGGGAGAC    | 1854 |
| QY                                                                         | 1867 | TGTTGGAACCGCACTACTGGCAGGGCCACTTGATCCCGAGTGGAGTTGTTGAACACCCC    | 1928 |
| Db                                                                         | 1855 | TGTTGGAACCGCACTACTGGCAGGGCCACTTGATCCCGAGTGGAGTTGTTGAACACCCC    | 1914 |
| QY                                                                         | 1927 | CCCCCTGTGAAGCTGTGTGTAACAGCTGGAGAAAGAGGCCCATCATCGCGCCGAGACTTC   | 1988 |
| Db                                                                         | 1915 | CCCCCTGTGAAGCTGTGTGTAACAGCTGGAGAAAGAGGCCCATCATCGCGCCGAGACTTC   | 1974 |
| QY                                                                         | 1987 | TACGTGGACGCGGCGCCGCCAACCGCGAGACCAAGATTCGGCAAGCGCGCTTACGTGACGAC | 2048 |
| Db                                                                         | 1975 | TACGTGGACGCGGCGCCGCCAACCGCGAGACCAAGATTCGGCAAGCGCGCTTACGTGACGAC | 2034 |
| QY                                                                         | 2047 | CGGGGCGCGGCAAGAAATCGTGAAGCTTGACCGAGACCAACCAACGAGAACCGAGCTGACG  | 2108 |
| Db                                                                         | 2035 | CGGGGCGCGGCAAGAAATCGTGAAGCTTGACCGAGACCAACCAACGAGAACCGAGCTGACG  | 2098 |
| QY                                                                         | 2107 | GCCATCCAGCTGGCCCTCGACGAGACAGCGGACGAGGTGAACATCTGACCGACGCGAG     | 2166 |
| Db                                                                         | 2095 | GCCATCCAGCTGGCCCTCGACGAGACAGCGGACGAGGTGAACATCTGACCGACGCGAG     | 2154 |
| QY                                                                         | 2167 | TACGCCCTTGGGATCATCTCAAGGCCCAAGCCCGACCAAGAGCGAGAGGACCTGTTGAACAG | 2222 |
| Db                                                                         | 2155 | TACGCCCTTGGGATCATCTCAAGGCCCAAGCCCGACCAAGAGCGAGAGGACCTGTTGAACAG | 2214 |
| QY                                                                         | 2227 | ATCATCGAGCAGCTGATCAAGAAGAGAAAGGTACTGAGCTGGGTGCGCGCCACCAAG      | 2286 |
| Db                                                                         | 2215 | ATCATCGAGCAGCTGATCAAGAAGAGAAAGGTACTGAGCTGGGTGCGCGCCACCAAG      | 2277 |
| QY                                                                         | 2287 | GGCATCGGCGGCGACGAGCAGATCGACAAGCTGTGAGCGAAGGCGCATCCGCAAGTGTCTG  | 2346 |
| Db                                                                         | 2275 | GGCATCGGCGGCGACGAGCAGATCGACAAGCTGTGAGCGAAGGCGCATCCGCAAGTGTCTG  | 2333 |
| QY                                                                         | 2347 | TTCCTGACGCGGATGATGATGGCGGACTCGTATCTACACGATACATGAGAGACTTGTACGTG | 2406 |
| Db                                                                         | 2335 | TTCCTGACGCGGATGATGATGGCGGACTCGTATCTACACGATACATGAGAGACTTGTACGTG | 2394 |
| QY                                                                         | 2407 | GGCAGCGGCGGCGCTTAGATCGATTAAAGCTTCCCGGGGCTAGCACCGGT 2457        |      |
| Db                                                                         | 2395 | GGCAGCGGCGGCGCTTAGATCGATTAAAGCTTCCCGGGGCTAGCACCGGT 2445        |      |
| RESULT 9                                                                   |      |                                                                |      |
| US-10-190-305A-37                                                          |      |                                                                |      |
| / Sequence 37, Application US/10190305A                                    |      |                                                                |      |
| / Publication No. US20030198621A1                                          |      |                                                                |      |
| / GENERAL INFORMATION:                                                     |      |                                                                |      |
| / APPLICANT: ZUR MEGEDE, Jan                                               |      |                                                                |      |
| / APPLICANT: BARNETT, Susan                                                |      |                                                                |      |
| / APPLICANT: LIAN, Ying                                                    |      |                                                                |      |
| / TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR |      |                                                                |      |
| / TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF   |      |                                                                |      |
| / FILE REFERENCE: 2302-18702 / 18702.002                                   |      |                                                                |      |
| / CURRENT APPLICATION NUMBER: US/10/190,305A                               |      |                                                                |      |
| / CURRENT FILING DATE: 2002-07-05                                          |      |                                                                |      |
| / NUMBER OF SEQ ID NOS: 93                                                 |      |                                                                |      |
| / SOFTWARE: PatencIn Ver. 2.0                                              |      |                                                                |      |
| / SEQ ID NO 37                                                             |      |                                                                |      |

[illegible]

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Qy 1027 CCCCTGAAGAGAGCTTCCGCAAGTACACCGCTTACCATCTCCAGCATCAACAGAG 1086
Db 1021 CCCCTGAAGAGAGCTTCCGCAAGTACACCGCTTACCATCTCCAGCATCAACAGAG 1080
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Db 1081 ACCCCCGGATCCGCTACCAAGTACACCGCTTACCATCTCCAGCATCAACAGAG 1140
Qy 1147 ATCTTCAAGAGAGATGACCAAGATCTCGAGCGCTTCCGCGCGCAACCCCGAGATC 1206
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Qy 1207 GTGATCTACAGAGCGCCCTCTGATACGTGGGCAAGCTTGAAGATCGGCGAGCGCC 1266
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Qy 1267 AAGATCGAGAGCTGCGCAAGCACTGTGCGCTGGGCTTCAACACCCCGCAAGAG 1326
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Db 1375 GTGAG 1434
Qy 1447 GTGGGCAAGCTGAATCTGGGCGAGCGCAAGATCTACCCCGCATCAAGGTGGCGAGCTGTGC 1506
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Db 1675 ATTACCAAGAGAGCGCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1734
Qy 1747 CACACCAAG 1806
Db 1735 CACACCAAG 1794
Qy 1807 GTGATCTGGGCGAAG 1866
Db 1795 GTGATCTGGGCGAAG 1854
Qy 1867 TGGTGAACCGACATACCTGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1926
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Qy 1927 CCCCTGGAAG 1986
Db 1915 CCCCTGGAAG 1974
Qy 1987 TACGTGAAG 2046

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Db 1975 TACGTGAAG 2034
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Db 2155 TACGCGCTGGGATCATCAGAGCGCCAGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2214
Qy 2227 ATCATCGAG 2286
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Db 2335 TTCTGAG 2394
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RESULT 10
US-10-190-435-9
; Sequence 9, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARRETT, Susan W.
; APPLICANT: LIAN, Yang
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Estrelita J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 9
; LENGTH: 3930
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: GagComp1Polmut_C
US-10-190-435-9

Query Match 98.1%; Score 2415.6; DB 6; Length 3930;
Best Local Similarity 99.6%; Pred. No. 0;
Matches 2434; Conservative 0; Mismatches 4; Indels 6; Gaps 1;

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1514 TGGCGCGCGCAAGCGCTTACCGACATCTGTGACCGAGAGAGCGCGAGCTGTGAGC 1573  
4235 TGGCGCGCGCAAGCGCTTACCGACATCTGTGACCGAGAGAGCGCGAGCTGTGAGC 4294  
1574 TGGCGCGCAACCGGAGATCTGTGGCGAGCGCGTGCAGCGCGTGTACTACGCCAGCA 1633  
4295 TGGCGCGCAACCGGAGATCTGTGGCGAGCGCGTGCAGCGCGTGTACTACGCCAGCA 4354  
1634 AGGACTGTGGCGCAGATCTCAGAGAGAGAGCGCAGACCGAGTGAACCTTACAGATCTAC 1693  
4355 AGGACTGTGGCGCAGATCTCAGAGAGAGAGCGCAGACCGAGTGAACCTTACAGATCTAC 4414  
1694 AGGAGCGCTTCAAGAACCTTGAAGACCGCGCAAGTACCGCAAGTGGCGACCGCCACACA 1753  
4415 AGGAGCGCTTCAAGAACCTTGAAGACCGCGCAAGTACCGCAAGTGGCGACCGCCACACA 4474  
1754 AGGAGTGAAGAGAGCTGACCGAGCGCGTGCAGAGAGATGCGCATGAGAGATCTGTACT 1813  
4475 AGGAGTGAAGAGAGCTGACCGAGCGCGTGCAGAGAGATGCGCATGAGAGATCTGTACT 4534  
1814 GGGGCAAGACCCCAAGTTCGCGCTGCCATTCAGAGAGAGACCTTGGAGACCTGTGTGA 1873  
4535 GGGGCAAGACCCCAAGTTCGCGCTGCCATTCAGAGAGAGACCTTGGAGACCTGTGTGA 4594  
1874 CCGACTACTGCGAGCGCACCTGTGATCCCGAGTGGAGATTGTTGAACACCCCGCTGTG 1933  
4595 CCGACTACTGCGAGCGCACCTGTGATCCCGAGTGGAGATTGTTGAACACCCCGCTGTG 4654  
1934 TGAAGCTGTGTATCAAGCTGTGAGAGAGCGCATGATGGCGCGCAGACCTTCTACGTGG 1993  
4655 TGAAGCTGTGTATCAAGCTGTGAGAGAGCGCATGATGGCGCGCAGACCTTCTACGTGG 4714  
1994 AGCGGCGCGCAACCGCGAGACCAAGATCGAGAGCGCGCTTACGTGACCGACCGGCGC 2053  
4715 AGCGGCGCGCAACCGCGAGACCAAGATCGAGAGCGCGCTTACGTGACCGACCGGCGC 4774  
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4775 GGCAGAGATCTGTGAGCTTGAACCGAGACCAACCAAGAGACCGAGCTGACAGCGCATC 4834  
2114 AGCTGCGCTTGAAGAGAGCGCGCAGCGAGAGTGAACATGTGTGACCGACAGCGATACGCC 2173  
4835 AGCTGCGCTTGAAGAGAGCGCGCAGCGAGAGTGAACATGTGTGACCGACAGCGATACGCC 4894  
2174 TGGGATCATCCAGGCGCGCAGCGCGCAAGAGCGAGAGAGAGAGAGAGATCTATG 2233  
4895 TGGGATCATCCAGGCGCGCAGCGCGCAAGAGAGAGAGAGAGAGAGAGATCTATG 4954  
2234 AGCAGCTGATCAAGAGAGAGAGAGTGTATCTGAGCTGGGTGCCCGCCCAAGAGGAGATG 2293  
4955 AGCAGCTGATCAAGAGAGAGAGAGTGTATCTGAGCTGGGTGCCCGCCCAAGAGGAGATG 5014  
2294 GGGGCAAGAGAGAGATCCAGCAAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2353  
5015 GGGGCAAGAGAGAGATCCAGCAAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 5074  
2354 AGGAGCTGATGGCGGACCTGTGATCTACCAATGATGAGACCACTTGTACGTGGAGAG 2413  
5075 AGGAGCTGATGGCGGACCTGTGATCTACCAATGATGAGACCACTTGTACGTGGAGAG 5134  
2414 GCGGCGCTTGAAGATGATTAAAGCTTCCGCGGCTTACGACCGGT 2457



Db 4415 AGAGCCCTTCAAGAACCTGAAGACCGGCAAGTACCGCAAGATGCGACCGCCACACCA 4474  
Qy 1754 AGAGGTGAAGAGCTGACCGAGGCGGTGACAGAAAGATGCGCATGAGACATCGTATCT 1813  
Db 4475 AGGAGGTGAAGAGCTGACCGAGGCGGTGACAGAAAGTCCCATGAGAGACATCGTATCT 4534  
Qy 1814 GGGGGCAAGACCCCAAGTCCGCTGCGCATCCAGAAAGAGACTTGGAGACCTGGTGA 1873  
Db 4535 GGGGCAAGACCCCAAGTCCGCTGCGCATCCAGAAAGAGACTTGGAGACCTGGTGA 4594  
Qy 1874 CCGACTACTGAGAGGCGACCTGATATCCCGAGTGGAGAGTTCTGTAACACCCCCCTTGG 1933  
Db 4595 CCGACTACTGAGAGGCGACCTGATATCCCGAGTGGAGAGTTCTGTAACACCCCCCTTGG 4654  
Qy 1934 TGAAGCTGTGTACCAAGCTGAGAAAGAGAGCCCATCATCGGCGCGGAGACTTCTAGTGG 1993  
Db 4655 TGAAGCTGTGTACCAAGCTGAGAAAGAGAGCCCATCATCGGCGCGGAGACTTCTAGTGG 4714  
Qy 1994 AGGCGCGCGCAACCGAGAGCCAGATCGGCAAGGCGGCTTACCTGACCGACCGGAGCC 2053  
Db 4715 AGGCGCGCGCAACCGAGAGCCAGATCGGCAAGGCGGCTTACCTGACCGACCGGAGCC 4774  
Qy 2054 GCGCAGAGATCTGTAGCTGACCGAGACCAACCAAGAAAGCCGAGCTGACAGGCTATCC 2113  
Db 4775 GCGCAGAGATCTGTAGCTGACCGAGACCAACCAAGAAAGCCGAGCTGACAGGCTATCC 4834  
Qy 2114 AGCTGGCCCTGAGAGGACGAGCGGAGGAGTGAACATCTGTACCGACAGCCAGTACGCC 2173  
Db 4835 AGCTGGCCCTGAGAGGACGAGCGGAGGAGTGAACATCTGTACCGACAGCCAGTACGCC 4894  
Qy 2174 TGGGCTATCTCAGGCGCCAGCCGACAGAGGAGAGGAGCTGTGAACAGATCATCG 2233  
Db 4895 TGGGCTATCTCAGGCGCCAGCCGACAGAGGAGAGGAGCTGTGAACAGATCATCG 4954  
Qy 2234 AGCAGCTGATCAAGAAAGAGAGTGTACTCTGAGCTGGTGCCTCCGACCAAGGGCATG 2293  
Db 4955 AGCAGCTGATCAAGAAAGAGAGTGTACTCTGAGCTGGTGCCTCCGACCAAGGGCATG 5014  
Qy 2294 GCGGCAAGAGAGATCGAACAGCTGTGAGCAAGGCGCATCCGCAAGGTGCTGTCTGG 2353  
Db 5015 GCGGCAAGAGAGATCGAACAGCTGTGAGCAAGGCGCATCCGCAAGGTGCTGTCTGG 5074  
Qy 2354 AGGCTATCTCAGGCGCATCTGTATCTACAGTACATGAGACGACTGTGACGAGCG 2413  
Db 5075 AGGCTATCTCAGGCGCATCTGTATCTACAGTACATGAGACGACTGTGACGAGCG 5134  
Qy 2414 GCGGCTTGAATCAATTAAGCTTCCGCGGCTTGAACCGGT 2457  
Db 5135 GCGGCTTGAATCAATTAAGCTTCCGCGGCTTGAACCGGT 5178

RESULT 15  
US-10-190-435-13

/ Sequence 13, Application US/10190435  
/ Publication No. US20030143248A1  
/ GENERAL INFORMATION:  
/ APPLICANT: ZUR MEGEDE, Jan  
/ APPLICANT: BARNETT, Susan W.  
/ APPLICANT: LIAN, Ying  
/ APPLICANT: ENGELBRECHT, Susan  
/ APPLICANT: VAN RENSBURG, Estrelita J.  
/ TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
/ TITLE OF INVENTION: POLYNUCLEOTIDES, POLYPEPTIDES AND USES THEREOF  
/ FILE REFERENCE: P18133.003 / 2302-18133  
/ CURRENT APPLICATION NUMBER: US/10/190,435  
/ NUMBER OF SEQ ID NOS: 319  
/ SOFTWARE: PatentIn Ver. 2.0  
/ SEQ ID NO 13  
/ LENGTH: 3531  
/ TYPE: DNA  
/ ORGANISM: Artificial Sequence  
/ FEATURE:

/ OTHER INFORMATION: Description of Artificial Sequence: GagPolnuc\_C  
US-10-190-435-13

Query Match 96.8%; Score 2383.6; DB 6; Length 3531;  
Best Local Similarity 98.8%; Pred. No. 0; Mismatches 24; Indels 6; Gaps 1;  
Matches 2414; Conservative 0;

Qy 14 TGGCCAGAGCCATGAGAGGCGCACAGCGCCATCTGTATGACGCGACCACTTCA 73  
Db 1088 TGGCCAGAGCCATGAGAGGCGCACACAGCGTATGATGACAAAGACACTTTAA 1147  
Qy 74 AGGCCCCAAGGCGCATCATCAAGTCTTCACTGCGGCAAGAGAGGCCCATTCGCCGA 133  
Db 1148 AGGCCCCAAGGCGCATCATCAAGTCTTCACTGCGGCAAGAGAGGCCCATTCGCCGA 1207  
Qy 134 ACTGCGGCGCCCGCAAGAAAGGCTGTGAAAGTGGCGCAAGAGAGGCCACAGATGA 193  
Db 1208 ACTGCGGCGCCCGCAAGAAAGGCTGTGAAAGTGGCGCAAGAGAGGCCACAGATGA 1267  
Qy 194 AGGACTGACCGAGCGCGCAAGGCGCACTTCTTCCGAGAGACTTGGCTTCCCGAGGCA 253  
Db 1268 AGGACTGACCGAGCGCGCAAGGCGCACTTCTTCCGAGAGACTTGGCTTCCCGAGGCA 1327  
Qy 254 AGGCGCGGAGTTCCTCCAGCGAGCAAAACCGCGCAACAGCCCAACGCGCGAGCTGC 313  
Db 1328 AGGCGCGGAGTTCCTCCAGCGAGCAAAACCGCGCAACAGCCCAACGCGCGAGCTGC 1387  
Qy 314 AGGTGGCGGCGCAAAACCCCGCAGCGAGGCGCGGCGCGAGCGCAAGGCGCACTTGA 373  
Db 1388 AGGTGGCGGCGCAAAACCCCGCAGCGAGGCGCGGCGCGAGCGCAAGGCGCACTTGA 1447  
Qy 374 TCCCCAGATCACTCTGTGAGCGCGCCCTGTGTGATCAAGTGTGGCGCGCAAGATCA 433  
Db 1448 TCCCCAGATCACTCTGTGAGCGCGCGCCCTGTGTGATCAAGTGTGGCGCGCAAGATCA 1507  
Qy 434 AGGAGGCTCTGTGACACCGCGCGCGAGCAACCTGTGTGAGAGAGATGAGCTTGC 493  
Db 1508 AGGAGGCTCTGTGACACCGCGCGCGAGCAACCTGTGTGAGAGAGATGAGCTTGC 1567  
Qy 494 GGAAGTGAAGCGCAAGATGATCGGCGGCGCATCGGCGGCTTCAAGAGTGCAGATAG 553  
Db 1568 GGAAGTGAAGCGCAAGATGATCGGCGGCGCATCGGCGGCTTCAAGAGTGCAGATAG 1627  
Qy 554 ACCAGATCTGTATCAAGATCTTGGCGCAAGAGGCGCATCGGCGGCTGTATCGGCCCA 613  
Db 1628 ACCAGATCTGTATCAAGATCTTGGCGCAAGAGGCGCATCGGCGGCTGTATCGGCCCA 1687  
Qy 614 CCCCCGTGAACATCATCGGCGCGCAACATGCTGAACCCAGTGGGCTGCAACCTTGC 673  
Db 1688 CCCCCGTGAACATCATCGGCGCGCAACATGCTGAACCCAGTGGGCTGCAACCTTGC 1747  
Qy 674 CCATGAGCCCATGAGACCGGCGCGTGAAGGCGCGGCGCATGAGCGGCCCAAG 733  
Db 1748 CCATGAGCCCATGAGACCGGCGCGTGAAGGCGCGGCGCATGAGCGGCCCAAG 1807  
Qy 734 TGAAGCAGTGGCGCTGACCGAGAGAGATCAAGGCGCTGACCGCGCATCTGAGAGAGA 793  
Db 1808 TGAAGCAGTGGCGCTGACCGAGAGAGATCAAGGCGCTGACCGCGCATCTGAGAGAGA 1867  
Qy 794 TGAAGAGAGAGGCGCAAGATCAACCAAGATCGGCCCGAGAGACCCCTTCAACACCCCGTGT 853  
Db 1868 TGAAGAGAGAGGCGCAAGATCAACCAAGATCGGCCCGAGAGACCCCTTCAACACCCCGTGT 1927  
Qy 854 TGGCCATCAAGAAAGAGAGCAGCACAAGTGGCGCAAGTGTGAGCTTCCGAGAGCTGA 913  
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Db 2048 AGAAGAAGAGAGCGTGAACCGTGTGAGCGTGGGCGACCGCTTACTTCAAGGTGCCCCCTGG 2107  
 QY 1034 AGGAGACTTCCGCAAGTACACCGCTTCAACATCCCCAGCATCAACAGAGACCCCCG 1093  
 Db 2108 ACAGAGACTTCCGCAAGTACACCGCTTCAACATCCCCAGCATCAACAGAGACCCCCG 2167  
 QY 1094 GCATCCGCTACCAAGTCAACAGTGTGCCCCGAGGCTGGAAGGAGGAGCCAGCATCTTC 1153  
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 Db 2228 AGAGAGCATGACCAAGTCTTGAAGCCCTTCCGCGCCCGCAACCCCGAGATGTGATCT 2287  
 QY 1214 ACCAGGCCCCCTGTAGTGTGGGCAAGCGACTGTGAGATGGGCGACACCGCGCAAGTCTG 1273  
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 Db 2348 AGAGAGTGGCGCAAGCATCTGTCTGCGTGGGGCTTCAACACCCCGCAACAGAGCATCGA 2407  
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 QY 1454 AGCTGAATCTGGGCGAGCAAGTCTACCCCGGCAATCAAGGTGGCGCAAGTGTGCAAGCTGC 1513  
 Db 2522 AGCTGAATCTGGGCGAGCAAGTCTACCCCGGCAATCAAGGTGGCGCAAGTGTGCAAGCTGC 2581  
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 Db 2642 TGGCGGAGAACCGGAGATCTGTGCGAGGCGCGTGCACGCGGTGTACTACGACCCGACA 2701  
 QY 1634 AGGACTGTGTGGCGGAGATCCAGAGAGAGGCGGCGACGACGAGTGAACCTACAGATCTACC 1693  
 Db 2702 AGGACTGTGTGGCGGAGATCCAGAGAGAGGCGGCGACGACGAGTGAACCTACAGATCTACC 2761  
 QY 1694 AGGAGCCCTTCAAGACCTGAGAGACCGGCAAGTACGCGCAAGATGCGACCGGCCACACA 1753  
 Db 2762 AGGAGCCCTTCAAGACCTGAGAGACCGGCAAGTACGCGCAAGATGCGACCGGCCACACA 2821  
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 QY 1934 TGAAGCTGTGTACAGCTGTGAGAGAGAGCCATCATGCGGCGCGAGACTTCTACGTGG 1993  
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 Db 3122 GGCAGAGAGATGTGAGCGCTGACCGAGACCAACCAACAGAGAGAGAGAGTGCAGGCGATCC 3181

QY 2114 AGCTGGCCCTGAGAGACAGCGGCGAGGAGTGAACATCTGTGACCGACAGCATGACGCC 2173  
 Db 3182 AGCTGGCCCTGAGAGACAGCGGCGAGGAGTGAACATCTGTGACCGACAGCATGACGCC 3241  
 QY 2174 TGGGCAATCATCAAGGCGGAGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2233  
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 QY 2234 AGGAGTGTATCAAGAGAGAGAGAGTGTACTGAGCTGGGAGTGGCGGCGCAAGAGGAGATG 2293  
 Db 3302 AGGAGTGTATCAAGAGAGAGAGAGTGTACTGAGCTGGGAGTGGCGGCGCAAGAGGAGATG 3361  
 QY 2294 GCGGCAAGAGAGAGATGACCAAGCTGTGAGCAAGGAGCATCCGCAAGTGTCTTCCTGG 2353  
 Db 3362 GCGGCAAGAGAGAGATGACCAAGCTGTGAGCAAGGAGCATCCGCAAGTGTCTTCCTGG 3421  
 QY 2354 ACAGCATCATGAGCGGAGATGTGTATCTACAGTGAATGAGAGAGAGAGAGAGAGAGAGAG 2413  
 Db 3422 ACAGCATCATGAGCGGAGATGTGTATCTACAGTGAATGAGAGAGAGAGAGAGAGAGAGAG 3481  
 QY 2414 GCGGCGCTTGTGATGATTTAAAGCTTCCGCGGCTTACGACCGGT 2457  
 Db 3482 GCGGCGCTTGTGATGATTTAAAGCTTCCGCGGCTTACGACCGGT 3525

Search completed: December 31, 2005, 03:58:02  
 Job time : 1734 sec

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GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: December 30, 2005, 08:57:15 ; Search time 295.667 Seconds  
(without alignments)  
4366.995 Million cell updates/sec

Title: US-09-610-313b-31

Perfect score: 2463

Sequence: 1 gtcagcagccaccatg9ccga.....gggctagcagcgtgaatcc 2463

Scoring table: IDENTITY NUC  
Gapop 10.0 , Gapext 1.0

Searched: 4172979 seqs, 262114271 residues

Total number of hits satisfying chosen parameters: 8345958

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%  
Listing first 45 summaries

Database:

1: /cgnt2\_6/ptodata/1/pubpna/US08\_NEW\_PUB.seq:\*  
2: /cgnt2\_6/ptodata/1/pubpna/US06\_NEW\_PUB.seq:\*  
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4: /cgnt2\_6/ptodata/1/pubpna/PCR\_NEW\_PUB.seq:\*  
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9: /cgnt2\_6/ptodata/1/pubpna/US11\_NEW\_PUB.seq3:\*  
10: /cgnt2\_6/ptodata/1/pubpna/US60\_NEW\_PUB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES:

| Result No. | Score  | Query Match | Length DB | ID | Description       |
|------------|--------|-------------|-----------|----|-------------------|
| 1          | 1316   | 53.4        | 1689      | 6  | US-10-507-928-9   |
| 2          | 1316   | 53.4        | 1689      | 6  | US-10-507-928-11  |
| 3          | 1316   | 53.4        | 1689      | 7  | US-11-029-465-9   |
| 4          | 1316   | 53.4        | 1689      | 7  | US-11-029-465-11  |
| 5          | 1106.8 | 44.9        | 9719      | 9  | US-11-042-988-11  |
| 6          | 156.2  | 6.3         | 17207     | 6  | US-10-519-531-8   |
| 7          | 154.6  | 6.3         | 1503      | 6  | US-10-519-531-2   |
| 8          | 141.4  | 5.7         | 1503      | 6  | US-10-507-928-3   |
| 9          | 141.4  | 5.7         | 1503      | 6  | US-11-029-465-3   |
| 10         | 103.4  | 4.2         | 2736      | 6  | US-10-858-730-38  |
| 11         | 102.6  | 4.2         | 3513      | 6  | US-10-858-730-142 |
| 12         | 88.2   | 3.6         | 37507     | 6  | US-10-522-037-2   |
| 13         | 85.2   | 3.5         | 2010      | 7  | US-11-058-727-5   |
| 14         | 85.2   | 3.5         | 2010      | 7  | US-11-108-389-5   |
| 15         | 80.6   | 3.3         | 1434      | 7  | US-11-075-185-57  |
| 16         | 80.6   | 3.3         | 14172     | 7  | US-11-075-185-2   |
| 17         | 73.6   | 3.0         | 1115      | 7  | US-11-143-986-7   |
| 18         | 71.4   | 2.9         | 1386      | 7  | US-11-075-185-55  |
| 19         | 71.4   | 2.9         | 8730      | 7  | US-11-087-100-1   |
| 20         | 71.4   | 2.9         | 8730      | 7  | US-11-087-084-1   |
| 21         | 71.4   | 2.9         | 8730      | 7  | US-11-087-085-1   |
| 22         | 71     | 2.9         | 3711      | 6  | US-10-873-528-31  |
| 23         | 70.6   | 2.9         | 2376      | 7  | US-11-056-621-3   |

|    |      |     |        |   |                   |                   |
|----|------|-----|--------|---|-------------------|-------------------|
| 24 | 66.8 | 2.7 | 1590   | 6 | US-10-858-730-162 | Sequence 162, App |
| 25 | 66.8 | 2.7 | 1593   | 6 | US-10-858-730-138 | Sequence 138, App |
| 26 | 66.6 | 2.7 | 765    | 7 | US-11-075-185-50  | Sequence 50, App1 |
| 27 | 66.6 | 2.7 | 864    | 7 | US-11-179-411-26  | Sequence 26, App1 |
| 28 | 66.6 | 2.7 | 864    | 7 | US-11-175-766-26  | Sequence 26, App1 |
| 29 | 66.6 | 2.7 | 14172  | 7 | US-11-075-185-2   | Sequence 2, App11 |
| 30 | 62.8 | 2.5 | 3408   | 6 | US-10-858-730-40  | Sequence 40, App1 |
| 31 | 62.4 | 2.5 | 3832   | 6 | US-10-821-234-99  | Sequence 99, App1 |
| 32 | 62   | 2.5 | 8651   | 6 | US-10-432-483-48  | Sequence 48, App1 |
| 33 | 61.8 | 2.5 | 506    | 7 | US-11-000-463-219 | Sequence 219, App |
| 34 | 61.8 | 2.5 | 116856 | 7 | US-11-143-980-1   | Sequence 1, App1  |
| 35 | 61.6 | 2.5 | 1690   | 6 | US-10-667-295-204 | Sequence 204, App |
| 36 | 61.6 | 2.5 | 3626   | 6 | US-10-821-234-245 | Sequence 245, App |
| 37 | 61.6 | 2.5 | 8645   | 9 | US-11-096-051-9   | Sequence 7, App11 |
| 38 | 61.6 | 2.5 | 8657   | 9 | US-11-096-051-7   | Sequence 11, App1 |
| 39 | 61.4 | 2.5 | 1119   | 7 | US-11-143-980-11  | Sequence 170, App |
| 40 | 61.2 | 2.5 | 1161   | 6 | US-10-858-730-170 | Sequence 58, App1 |
| 41 | 60.4 | 2.5 | 6264   | 7 | US-11-075-185-58  | Sequence 1, App11 |
| 42 | 60.4 | 2.5 | 7869   | 7 | US-11-075-185-1   | Sequence 3, App11 |
| 43 | 60.2 | 2.4 | 7786   | 9 | US-11-096-051-3   | Sequence 1, App11 |
| 44 | 60.2 | 2.4 | 8362   | 9 | US-11-096-051-1   | Sequence 2, App11 |
| 45 | 59.8 | 2.4 | 6360   | 7 | US-11-056-470-2   |                   |

#### ALIGNMENTS

RESULT 1  
US-10-507-928-9  
Sequence 9, Application US/10507928  
Publication No. US20050266024A1  
GENERAL INFORMATION:  
APPLICANT: POWDERED LIMITED AND GLAXO GROUP LIMITED  
TITLE OF INVENTION: ADJUVANT  
FILE REFERENCE: N.88232B GCM  
CURRENT APPLICATION NUMBER: US/10/507,928  
CURRENT FILING DATE: 2004-09-17  
NUMBER OF SEQ ID NOS: 12  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 9  
LENGTH: 1689  
TYPE: DNA  
ORGANISM: Artificial sequence  
FEATURES:  
OTHER INFORMATION: nucleotide sequence of RT insert of p7077-RT3  
US-10-507-928-9

Query Match 53.4%; Score 1316; DB 6; Length 1689;  
Best Local Similarity 86.9%; Pred. No. 1.1e-204;  
Matches 1461; Conservative 0; Mismatches 215; Indels 6; Gaps 1;  
QY 672 CCCCATCAGCCCATCGAGACCGTCCCGTGAAGCTGAAGCCCGCATGACGGCCCCCA 731  
DB 6 CCCCATCAGTCCCATCGAGACCGTCCCGTGAAGCTGAAGCCCGCATGACGGCCCCCA 65  
QY 732 GGTGAGCAGTGGCCCTGACCGAGGAGAGATTAAGCCCTGACCCCATCTGGAGGA 791  
DB 6 GGTGAGCAGTGGCCCTGACCGAGGAGAGATTAAGCCCTGAGAGATCTGACCGGA 125  
QY 792 GATGAGAGAGAGGAGGAGATCACCAAGATCGGCCCCGAGAGACCCCTACACACCCCGT 851  
DB 126 GATGAGAGAGAGGAGGAGATCACCAAGATCGGCCCCGAGAGACCCCTACACACCCCGT 185  
QY 852 GTTCGCCATCAGAGAGAGAGACAGACCAAGTGGCGCAAGCTGTGATCTTCCGAGCT 911  
DB 186 GTTCGCCATCAGAGAGAGAGACAGACCAAGTGGCGCAAGCTGTGATCTTCCGAGCT 245  
QY 912 GAAAGAGCCAGCCAGAGACTTTGGAGAGTGCAGCTGGCATTCGCCAGCGGCT 971  
DB 246 GAAAGAGCCAGCCAGAGACTTTGGAGAGTGCAGCTGGCATTCGCCAGCGGCT 305  
QY 972 GAAAGAGAGAGAGCGGTGACCGTGGACGAGTGGCGAGCCGCTTACGAGTGGCCCT 1031  
DB 972 GAAAGAGAGAGAGCGGTGACCGTGGACGAGTGGCGAGCCGCTTACGAGTGGCCCT 1031

Db 306 GAAAGAAAGAGAGCGTGAACGTCGTGAGCTGAGGCGACGCTTACTTCAAGCTCCCTCT 365  
Qy 1032 GGAACGAGACTTCGCAAGTATACACGCGCTTCAACATCCCAAGATCAACAAGAGACCCC 1091  
Db 366 GGAACGAGACTTCGCAAGTATACACGCGCTTCAACATCCCAAGATCAACAAGAGACCCC 425  
Qy 1092 CGGCAATCCGCTCAAGTACAAAGTGTGCGCCCAAGGCTGAAAGGCGACCGCAAGATCTT 1151  
Db 426 TGGCATCAAGATATCAAGTACAGCTCTCCCAAGGCTGAAAGGCGCTCTCCGCAATTTT 485  
Qy 1152 CGAAGCAGCATGACCAAGATCTTGAGGCTTCCGCGCCCAACCCCAAGATGATAT 1211  
Db 486 CGAGAGCTCATGACCAAGATCTTGAGGCTTCCGCGCGCAAGCAACCCCAATGCTCAT 545  
Qy 1212 CTAACA-----GGCCCCCTGTATCGTGGGCAAGCGACTGAGATCGGCAACCGGCG 1265  
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Qy 1266 CAAGATCGAGAGCTGCGCAAGCACTGTGCGCTGAGGCTTCAACCAACCCCAAGAGAA 1325  
Db 606 GAAAGATTGAGAGCTGAGGCAAGCATTTGCTGAGATGAGGCGCTGACCACTCCGACAGAA 665  
Qy 1326 GCAACGAAAGAGACCCGCTTCTGTGATGAGGCTACGAGCTGCAACCCCAAGAGTGAAC 1385  
Db 666 GCATCAGAAAGAGACCCGCTTCTGTGATGAGGCTACGAGCTTCAATCCCAAGAGTGAAC 725  
Qy 1386 CGTGCAGCCCATCTGAGCTGCGCAAGAGAGAGCTGGAACCGTGAACAGATCCAGAACT 1445  
Db 726 CGTGCAGCCCATCTGCTCTCCGAGAGAGAGAGCTGGAACCGTGAACAGATCCAGAACT 785  
Qy 1446 GGTGGGCAAGCTGAACCTGAGGCAAGCAAGATCTACCCGCAATCAAGAGTGGCGAGCTGTG 1505  
Db 786 GGTGGGCAAGCTGAACCTGAGGCTGAGGCAAGATCTACCCGCAATCAAGAGTGGCGAGCTGTG 845  
Qy 1506 CAAGCTGCTGCGCGCGCAAGGCGCTGACCGACATGTCCTTGAACGAGAGGCGCA 1565  
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Qy 1566 GCTGAGAGCTGGCGGAGAACCGGCAAGTCTTGCGCGAGCGCGTGAACCGGCTGATCTAACA 1625  
Db 906 GCTGAGAGCTGGCGGAGAACCGGCAAGTCTTGCGCGAGCGCGTGAACCGGCTGATCTAACA 965  
Qy 1626 CCCCAAGCAAGAGCTGTGAGCGAGATCCAGAAAGCAAGGCGCAACCAAGTGAACCTTACA 1685  
Db 966 CCCCTTCAAGAGACTGATCGCGGAATCCAGAAAGCAAGGCGCAAGTGAACCTTACA 1025  
Qy 1686 GATCTACAGAGAGCCCTTCAAGAACTTGAAGACCGGCAAGTACGCGAAGATGCGACCGC 1745  
Db 1026 GATTTACAGAGAGCTTTCAAGAACTTCAAGAACCGGCAAGTACGCGAATGAGGCGCGC 1085  
Qy 1746 CCAACACCAAGAGAGTGAAGCAAGTGAACCGAGGCGGTGCAAGAAATGCGCAATGAGAGCAT 1805  
Db 1086 CCAACACCAAGAGTGAAGCAAGTGAACCGAGGCGGTGCAAGAAATGCGCAAGTGAAGCAT 1145  
Qy 1806 CGTGAATCTGAGGCAAGACCCCAAGTTCCGCGCTGACCATCCAGAAAGAGAGCTGGAGAGAC 1865  
Db 1146 CGTGAATCTGAGGCAAGACCCCAAGTTCCAGACTGCTTATCCAGAAAGAGAGCTGGAGAGAC 1205  
Qy 1866 CTGTGAGACCACTATCTGAGAGCGCACTGTGATCCCGAGTGGAGATTGCTGAACACCC 1925  
Db 1206 GTGTGAGACCAATATTGGAGAGCGCACTGTGATCCCGAGTGGAGATTGCTGAATACAC 1265  
Qy 1926 CCCCTGTGTGAAGCTGTGTATCAAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1985  
Db 1266 TCTCTGTGTGAAGCTGTGTATCAAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1325  
Qy 1986 CTAACGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2045  
Db 1326 CTAACGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1385  
Qy 2046 CCGGAGCGGCAAGAGATGCTGAAGCTTGAACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2105  
Db 1386 CCGGAGCGGCAAGAGATGCTGAAGCTTGAACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1445

Qy 2106 GGCATCCAGCTGCGCTGACAGAGACGCGCAAGAGTGAACATGTGACCGAGAGCA 2165  
Db 1446 GGCATCTATCTGCTCTCCAGAGACTCGGCGCTGAGAGTGAACATGTGACCGAGAGCA 1505  
Qy 2166 GTAGCGCTGAGCATCATCCAGCGCCAGCGCAAGAGCGAGAGAGAGAGAGAGAGAGAG 2225  
Db 1506 GTAGCGCTGAGCATTATTCAGGCGCCAGCGCAAGAGTCCAGAGCGAAGTGTGAACCA 1565  
Qy 2226 GATCATTCAGAGAGCTGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2285  
Db 1566 GATTAATCAGAGAGCTGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1625  
Qy 2286 GGGCATCGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2345  
Db 1626 GGGCATTCGCGCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1685  
Qy 2346 GT 2347  
Db 1686 GT 1687  
  
RESULT 2  
US-10-507-928-11  
; Sequence 11, Application US/10507928  
; Publication No. US2005026024A1  
; GENERAL INFORMATION:  
; APPLICANT: POWDERMED LIMITED AND GLAXO GROUP LIMITED  
; TITLE OF INVENTION: ADJUVANT  
; FILE REFERENCE: N.882328 GCW  
; CURRENT APPLICATION NUMBER: US/10/507,928  
; CURRENT FILING DATE: 2004-09-17  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 11  
; LENGTH: 1689  
; TYPE: DNA  
; ORGANISM: Artificial sequence  
; FEATURE:  
; OTHER INFORMATION: nucleotide sequence of the coding insert in p731-RT3  
US-10-507-928-11  
  
Query Match 53.4%; Score 1316; DB 6; Length 1689;  
Best Local Similarity 86.9%; Pred. No. 1,1e-204;  
Matches 1461; Conservative 0; Mismatches 215; Indels 6; Gaps 1;  
  
Qy 672 CCCCATCAGCCCATATCAGAGACCTGTGCGGTGAAGCTGAAAGCCCGCATGAGAGGCCCA 731  
Db 6 CCCCATCAGTCCCATCAGAGACCTGTGCGGTGAAGCTGAAAGCCCGCATGAGAGGCCCA 65  
Qy 732 GGTGAAGCAGTGGCCCTGACCGAGGAGAAATCAAGGCGCTGACCGCATCTGCGAGAG 791  
Db 66 GGTGAAGCAGTGGCCCTGACCGAGGAGAAATCAAGGCGCTGAGAGATCTGACCGA 125  
Qy 792 GATGAGAGAGAGGCAAGATCAACAAGATCGGCGCCGAGAAACCCCTTACAACAACCCCGT 851  
Db 126 GATGAGAGAGAGGCGCAAGATCAACAAGATCGGCGCTGAGAAACCCCTTACAACAACCCCGT 185  
Qy 852 GTTCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 911  
Db 186 GTTCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 245  
Qy 912 GAAACAAGCCACCAAGAGATTTGTGAGAGTGAAGCTGGGCAATCCCGACCGGCGGCT 971  
Db 246 GATTAAGCGAGCCAGAGATTTGTGAGAGTGAAGCTGGGCAATCCCGACCGGCGGCT 305  
Qy 972 GAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1031  
Db 306 GAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 365  
Qy 1032 GGAAGAGAGATTCGCAAGTACACCGGCTTCAACATCCCAAGATCAACAAGAGAGAGAG 1091  
Db 366 GGAAGAGAGATTTAAGAAAGTACACCGGCTTCAACATCCCAAGATCAACAAGAGAGAGAG 425



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Db 426 TGGGATTCAGATATTCAGTACAGAGTCTCCCGAGGGCTGGAAAGGGCTCTCCGGCATTTT 485
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Db 486 CCAAGAGCTTCATGACCAAGATCTTGAGGCTTCCGAGAGAGAACCCCGAATGTCTCAT 545
Qy 1212 CTACCA-----GGCCCCCTGTAGTGGGCAAGCGACTGGAGATGGCAGAGACCGGCG 1265
Db 546 CTACCACTGATCATGAGAGACCTGTAGTGGGCTGTGACTGGAAATGGGCAAGATGCGAC 605
Qy 1266 CAAGATCGAGAGAGCTGCGAAGACCTGTGCGCTGGGGCTTCAACACCCCGCAAGAA 1325
Db 606 GAAAGATGAGAGAGCTGAGGAGACATCTGTGAGATGGGGCTGTGACCATCCGGAAGAA 665
Qy 1326 GCAACCAAGAGAGAGCCCGCTTCTGTGTGATGGGCTACAGCTGACACCCCGCAAGTGGAC 1385
Db 666 GCATCGAAGAGAGAGCCCGCATTCCTGTGTGATGGGCTACAGAGCTCATCCGGAAGAGTGGAC 725
Qy 1386 CGTGACGCCCCATCGAGCTGCCGAGAGAGAGAGCTGGAACCGTGAACGATCCAGAGAGCT 1445
Db 726 CGTGACGCCCCATTCGTCTCTCCCGAAGAGAGAGAGCTGGAACCGTGAACGATCCAGAGAGCT 785
Qy 1446 GGTGGGCAAGCTGAACCTGGGCGCAGCGAGATCTAACCCCGCATCAAGGTGGCGCAGCTGTG 1505
Db 786 GGTGGGCAAGCTGAACCTGGGCTGAGCAGAGATCTAACCCGGAGATCAAGGTGGCGCAGCTGTG 845
Qy 1506 CAAGCTGTGCGCGGCGGCGCAAGGCGCTTGACCGACATCGTGCCCTTGACCGGAGAGAGCGCA 1565
Db 846 CAAGCTGTGCGCGGCGGCGCAAGGCGCTTGACCGAGGTGATTCCTCTCAAGAGAGAGCGCA 905
Qy 1566 GCTGAGAGCTGCGCGGAGAGCCGCGAGATCTGCGCGAGAGCGCGCTGTGATCTAGCA 1625
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Qy 1806 CGTGATCTGTGGGCAAGACCCCAAGTTCCGCTGCGCATTCAGAAAGAGAGCTTGGAGAGAC 1865
Db 1146 CGTGATCTGTGGGGAAGACACCCAGATTCAAGCTGCTATCCAGAAAGAGAGCTTGGAGAGAC 1205
Qy 1866 CTGTGTGAGAGCGGACTACTGTGAGAGCGCACCTGTGATCCCGAGGTGGAGATTTGTGAAACCCC 1925
Db 1206 GTGTGTGAGAGCGGATATTGTGAGAGCGCACCTGTGATTTCCAGGTGGAGATTTGTGATTAACCC 1265
Qy 1926 CCCCCGTGTGAGAGCTGTGTGACCAAGCTGAGAGAGAGAGCGCATCATGGGCGCGAGAGCTT 1985
Db 1266 TCTCTGTGTGAGAGCTGTGTGACCAAGCTGAGAGAGAGAGCGCATGTGTGGCGCGAGAGCATT 1325
Qy 1986 CTACGTGAGAGCGGCGCGCAACCGCGAGACCAAGATCGGCAAGCGCGCTACGTGACCGA 2045
Db 1326 CTACGTGAGAGCGGCGCGCAACCGCGAAACCAAGGCTCGGGAAGCGCGGATACGTGACCA 1385
Qy 2046 CCGGGGCGCGGAGAGATGTGTGAGCTGACCGAGACCAACCAAGAGAGAGAGAGAGAGAGCTTGA 2105
Db 1386 CCGGGGCGCGGAGAGAGTGTGTGACCTGTGACCGAGACCAACCAAGAGAGAGAGAGAGAGCTTGA 1445
Qy 2106 GGCATCTGAGCTGTGCGCTGAGAGAGAGCGGAGCGAGGTGAACATGTGTGACCGAGAGCA 2165
Db 1446 GGCATCTGATCTGTGCTTCAAGAGCTTCGGGCTGTGAGGTGAACATGTGTGACCGAGAGCA 1505
Qy 2166 GTACGCGCTTGGCATCATCGAGCGCGAGCGCAAGAGAGAGAGAGAGAGCTGTGAGAGCA 2225

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Db 1506 GTACGCGCTGGCATTAATTCAGGCGCCAGCGGACCAATCCGAGAGCACTGTGTAACCA 1565
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Db 1566 GATTCATTCAGAGAGCTGATTCAGAGAGAGAGGTGTACTGAGCTGGGTGCGCCGCAATA 1625
Qy 2286 GGCATTCGCGGCAAG 2345
Db 1626 GGCATTCGCGGCAAG 1685
Qy 2346 GT 2347
Db 1686 GT 1687

RESULT 4
US-11-029-465-11
; Sequence 11, Application US/11029465
; Publication No. US20050256070A1
; GENERAL INFORMATION:
; APPLICANT: Thomsen, Ralph P.
; APPLICANT: Braum, Ralph P.
; APPLICANT: Van-Wely, Catherine
; APPLICANT: Ertl, Peter
; TITLE OF INVENTION: Adjuvant
; FILE REFERENCE: 033267-015
; CURRENT APPLICATION NUMBER: US/11/029,465
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq For Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 1689
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: nucleotide sequence of the coding insert in
; US-11-029-465-11

Query Match 53.4%; Score 1316; DB 7; Length 1689;
Best Local Similarity 86.9%; Pred. No. 1,1e-204;
Matches 1461; Conservative 0; Mismatches 215; Indels 6; Gaps 1;

Qy 672 CCCCATCAGCCCCCATTCGAG 731
Db 6 CCCCATCAGCTCCCATTCGAG 65
Qy 732 GGTGAAG 791
Db 66 GGTGAAG 125
Qy 792 GATGAG 851
Db 126 GATGAG 185
Qy 852 GTTTCGATCAAG 911
Db 186 GTTTCGATCAAG 245
Qy 912 GAAAG 971
Db 246 GAAAG 305
Qy 972 GAAAG 1031
Db 306 GAAAG 365
Qy 1032 GGAAG 1091
Db 366 GGAAG 425
Qy 1092 CGGATTCGCTTACAGTACCAAGGTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1151

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Db 426 TGGCATCAATATCAAGTACAACGTCTCCCCAGGGCTGAGAGGCTCTCCGCAATTT 485  
Qy 1152 CCAGACAGCATGATCAACAGATCTGTGAGCCCTTCCGCGCCGCAACCCCGAGATCTGAT 1211  
Db 486 CCAAGACTCCATATCAAGATCTGTGAGCGGTTTCCGAAACAGAACCCCGATTCGTAT 545  
Qy 1212 CTACCA-----GGCCCCCTGTATCTGTGGCAGCGACTTGAAGATGGGCCAGCAGCGC 1265  
Db 546 CTACCAAGTACATGAGCAGACTGTACGTGGCTCTGACTTGAAATCGGGCAGCATCGCAC 605  
Qy 1266 CAAGATTCAGAGACTGTGGAGAGACCTGCTGGGCTTCAACCAACCCCGCAAGAA 1325  
Db 606 GAAGATTGAGAGACTGAGAGCATGTGAGATGGGCTTGAACACTCCGAGCAAGAA 665  
Qy 1326 GCACAGAAAGAGACCCCTCTCTGTGATGGCTACAGACTGACCCCGCAAGTGGAC 1385  
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Qy 1386 CGTGCAGCCCATGAGCTGCTCCGAGAGAGAGAGCTGAGCCGTGAACGATCCAGAACT 1445  
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Qy 1506 CAAGCTGTGCGGGGCGCAAGGCGCTGACCGACATCTGCTCCCTGACCGAGAGCGCA 1565  
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Qy 1566 GCTGAGCTGCGCGAGAACCGCGAGATCTGCGGAGCCGCTGACGCGCTGTACTAGA 1625  
Db 906 GCTGAGCTGCTGAGAACCGGAGATCTTGAAGAACCCGCTGACGCGCTGTACTAGA 965  
Qy 1626 CCCCAGAGAGACTGTGTGCGCGAGATCCAGAACAGAGGCGCAACGAGTGAACCTTACA 1685  
Db 966 CCCCCTCCAGAGACTGTATGCGCGAATCCAGAACAGAGGCGCAAGTGAACCTTACA 1025  
Qy 1686 GATTTACAGAGGCGCTTCAAGAACTGAAGACCGGCAAGTACCCCAAGATCGCACCGC 1745  
Db 1026 GATTTACAGAGGCGCTTCAAGAACTTCAAGACCGGCAAGTACCCCGCATGAGGGGCGC 1085  
Qy 1746 CCAACACCAAGACGTGAAGCAGCTGACCGAGCGCTGCAAGAACTGCGCATGAGAGCAT 1805  
Db 1086 CCAACACCAAGATGTCAAGAGCTGACCGAGCGCTGCAAGAACTGAGACGAGTCAT 1145  
Qy 1806 CGTATCTGGGGCAAGACCCCAAGTTCCGCTGCTCATCCAGAAAGAGACTTGGAGAC 1865  
Db 1146 CGTATCTGGGGGAAAGACCCCAAGTTCAAGCTGCTATCCAGAAAGAGACTTGGAGAC 1205  
Qy 1866 CTGATGAGACCGACTAGCGAGGCACTGATCCCGAGTGGAGTTGTTGAAACACCC 1925  
Db 1206 GTGATGAGACCGAATATTTGGAGGCGCACTGATTTCCAGATGGAGTTTGTGAATACCC 1265  
Qy 1926 CCCCCTGTGAGGCTGTGTGTAACAGCTGAGAGAGAGGCCATCATCGGCGCGAGACCTT 1985  
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Qy 1986 CTAGCTGAGCGGCGCGCAACCGGAGAGCAAGATCGGCAAGGCTGGCTTACTGACCGA 2045  
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Qy 2106 GGGCATTCAGCTGCGCTGTGAGAGCAGCGGAGCGAGGTGAACATGTGACCGACGCA 2165  
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Qy 2166 GTAGCGCTGGGATCATTCAGGCGCGAGCCGAGCAAGAGCGAGCGAGCTGTGTGAACA 2225  
Db 1506 GTAGCGCTGGGATTCATTCAGGCGCGAGCCGAGCAAGTCCAGAGAGCGAATGTGTGAACA 1565

Qy 2226 GATCATTCAGAGCTGATGATGAAGAGAGAGGTACTGAGCTGTGGCCGCCCAAA 2285  
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Qy 2286 GGGCATTCGCGGCAAGAGCAGATTCAGAGCTGTGTGAGCGAAGGAGCATCGCAAGTGT 2345  
Db 1626 GGGCATTCGCGGCAAGAGCAGATTCAGAGCTGTGTGAGCGGAGATTGAAGAGTGT 1685  
Qy 2346 GT 2347  
Db 1686 GT 1687

RESULT 5  
US-11-042-988-10  
; Sequence 10, Application US/11042988  
; Publication No. US20050244818A1  
; GENERAL INFORMATION:  
; APPLICANT: SILICIANO, ROBERT  
; APPLICANT: ZHANG, HAILI  
; APPLICANT: ZHOU, YAN  
; TITLE OF INVENTION: SINGLE CELL ANALYSIS OF HIV REPLICATION CAPACITY AND  
; TITLE OF INVENTION: DRUG RESISTANCE  
; FILE REFERENCE: 62760 (71699)  
; CURRENT APPLICATION NUMBER: US/11/042,988  
; CURRENT FILING DATE: 2005-01-25  
; PRIOR APPLICATION NUMBER: 60/540,716  
; PRIOR FILING DATE: 2004-01-30  
; NUMBER OF SEQ. ID NOS: 16  
; SOFTWARE: PatentIn Ver. 3.3  
; SEQ. ID NO 10  
; LENGTH: 9719  
; TYPE: DNA  
; ORGANISM: Human immunodeficiency virus type 1  
US-11-042-988-10

Query Match 44.9%; Score 1106.8; DB 9; Length 9719;  
Best Local Similarity 68.3%; Pred. No. 6,4e-171;  
Matches 1598; Conservative 0; Mismatches 723; Indels 19; Gaps 4;

Qy 43 GCCAATCTGATGAGCGAGCACTTCAAGGCGCCCAAGCGCATCATCACTGCTTC 102  
Db 1909 GCTACCAATATGATGAGAGAGCAATTTTGAACCAAGAAAGATTGTAACTGTTTC 1968  
Qy 103 AACTCGGCAAGAGGCGCAATCGCCGCAATGCGCGCCCGCCGCAAGAGGCTGC 162  
Db 1969 AATTGTGGCAAGAGGCGCAACAGCAAAATTGCAAGGCGCCCTTGAAGAAAAGGCTGT 2028  
Qy 163 TGAAGTGGCGCAAGAGGCGCACAGATGAAGACTGACCGAGCGCCAGCACTTC 222  
Db 2029 TGAAGATGTGAAGAGAGAGCAACCAATGAAAGATTGTACTGAGAGACAGGCTTA- TTT 2087  
Qy 223 TTCCGCAAGAGACTGTGCTTCCCGCAGAGGCGCGCGAGTTCCCGAGGAGCAGAAC 282  
Db 2088 TTTAAGGAAGATCTGCGCTTCTTCAAGAGGAGCGCAGGAAATTTTCTTCAAGAGCAC 2147  
Qy 283 CGCGCAAGAGCGCCCAACAGCGCGAGCTGAGGTTGCGCG-----GACAAACCCCGC 336  
Db 2148 AGAGCAAGAGCGCCCAACAGAGAGAGCTTCAAGGTTGAGGAGTGAAGCAACATCCCCC 2207  
Qy 337 AGCGAGCGCGCGCGAGCGCAGGCA-----CCTGAACTTCCCGCAATCACTCTG 390  
Db 2208 TCAGAGAGAGAGCGCGATGACAGAACTGTATCTTTAATCTTCCCTCAAGTCACTCTT 2267  
Qy 391 TGGAGAGGCGCGCTGTGAGGATCAAGTGGGCGCGCAAGTCAAGAGAGCGCTCTGTGAC 450  
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Qy 451 ACCGCGCGCGAGCAACCGCTGTGAGAGATGAGCTGCGCGCAAGTGAAGCCCAAG 510  
Db 2328 ACAAGAGAGATGATACGATTTAGAAAGATGAGTTTTCAGAGAAAGTGAAGAACCAAAA 2387

QY 511 ATGATCGGCGGATCGGCGGCTTCATCAAGGTGCGCCAGTACGACCAATCCTGATCGAG 570  
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 QY 571 ATCTGCGGCAAGAGGCCATCGGCACCGTGTGATGCGCCCAACCCCGTGAACATCATC 630  
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 DB 2568 ACTGTACAGTAAATTAAGCCAGGATGAGTGGCCCAAAAGTTAAACATATGGCCATTG 2627  
 QY 751 ACCGAGAGAAATCAAGGCCCTGACCGGCATCTGCGAGAGATGAGAGAGAGGCAAG 810  
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 DB 2688 ATTTCAAAATTTGGGCTGAGAAATCCATACATATCTCGATTTTGGCATTAAGAAAA 2747  
 QY 871 GACAGCACCAGTGGCGCAAGCTGTGACTTCCGAGCTGAAACAAGCGCACCCAGAC 930  
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 QY 991 ACCGTGCTGAGCGTGGCGCAGCGCTTCAAGGTGCGCCCTGAGACGAGACTTCCGAG 1050  
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 QY 1111 AACGTGTGCGCCCAAGGCTGAGAGAGGCAAGCCCAAGATCTTCCAGAGCAGCATGACAG 1170  
 DB 2988 AATGTGCTTCAACAGGATGAGAGAGATCAACAGCAATATTCAAAGTATGACAGAAAA 3047  
 QY 1171 ATCTGAGAGCCCTTCCGCGCCGCAACCCGAGATGTGATCTACCA-----GGCCCC 1224  
 DB 3048 ATCTTAGAGCCCTTTTAGAAAACAAAATTCAGACATGTTATCTATTAATACATGATGAT 3107  
 QY 1225 CTGTACGTGGGAGCGACCTGAGATCGGCAGCACCGCGCAAGATCGAGAGCTGCGC 1284  
 DB 3108 TTGTATGTAGATCTGACTTAGAAATAGGGCAGCATAGAAACAAATTAAGAGGCTGAGA 3167  
 QY 1285 AAGCAGCTGTGCGCTGGGGCTTACACACCCCGACAAAGACCAAGACCAAGAGAGCCGCC 1344  
 DB 3168 CAACATCTGTGAGGGGAGCTTACACACAGACAGAAAAAATCATAGAGAAAGAACTTCA 3227  
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 DB 3348 GCAAGTCAATTTACCGAGGATTAAGGTGAAGCAATTTATGTAATCTCTTATGAGAGAAC 3407  
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 DB 3408 AAGGCACTAACAGATTAATCCACTTAACAGAGAGAGAGAGCTAGAACCTGAGAGAAAC 3467  
 QY 1585 CCGAGATCTGTGCGAGGCGGTGACGCGGTGTACTAGACCCGACAGAAAGCTGTGTG 1644

DB 3468 AAGAGATCTTAAAGAACCCAGTACATGAGGTATTTAGACCCATCAAAAGACTTAATA 3527  
 QY 1645 GCGAGATCTCAGAGAGAGGAGGACAGACAGTGAAGCTTACAGATCTACAGAGAGCCCTC 1704  
 DB 3528 GCGAGATCTCAGAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 3587  
 QY 1705 AAGAGCTGAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1764  
 DB 3588 AAGAGCTGAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 3647  
 QY 1765 CAGCTGACGAGAGGCGGTGCAAGAGATCGGCATGAGAGATGTGTATCTGTGGGCAAGAC 1824  
 DB 3648 CAATTACAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 3707  
 QY 1825 CCGAGTCCGCGTCCCATTCAGAGAGGAGCCTGGGAGACCTGGTGAACGCTACTG 1884  
 DB 3708 CTTAAATTTAACTGCGCATACAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3767  
 QY 1885 CAGGCACTGATCCCGAGTGGAGGAGTGTGAAACACCCCGCGCTGTGAAGCTGTG 1944  
 DB 3768 CAGGCACTGATCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 3827  
 QY 1945 TACAGCTGAGAGAGAGGAGGAGTCAATCGGCGCGAGACCTTCTAGTGAACGCGCGCC 2004  
 DB 3828 TACAGTGAAGAGAGAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 3887  
 QY 2005 AACCGGAGAGCAAGATGGGAGAGGCGCGCTGACGAGACCGGCGCGGAGAGAGATC 2064  
 DB 3888 AACAGGAGAGCTTAATTTAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3947  
 QY 2065 GTGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2124  
 DB 3948 GTCACTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4007  
 QY 2125 CAGGAGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2184  
 DB 4008 CAGGATCGGAGATTAAGAGTAAACATAGTACAGACTCAATATGATGATGATGATGAT 4067  
 QY 2185 CAGGCGCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2244  
 DB 4068 CAGGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4127  
 QY 2245 AAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2304  
 DB 4128 AAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4187  
 QY 2305 CAGATCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2364  
 DB 4188 CAGTATGATTAATTTAGTCAAGTGTGAGATCAGAGAAAGTACTATTTTATGATGATGAT 4247

RESULT 6  
 US-10-519-531-8  
 ; Sequence 8, Application US/10519531  
 ; Publication No. US20050244429A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Polks, Thomas M.  
 ; TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR  
 ; FILE REFERENCE: 14114.037302  
 ; CURRENT APPLICATION NUMBER: US/10/519,531  
 ; CURRENT FILING DATE: 2004-12-27  
 ; PRIOR APPLICATION NUMBER: PCT/US03/20325  
 ; PRIOR FILING DATE: 2003-06-27  
 ; PRIOR APPLICATION NUMBER: 60/392,630  
 ; NUMBER OF SEQ ID NOS: 8  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 8  
 ; LENGTH: 17207  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:

OTHER INFORMATION: Description of Artificial Sequence:/note =  
OTHER INFORMATION: synthetic construct  
US-10-519-531-8

Query Match 6.3%; Score 156.2; DB 6; Length 17207;  
Best Local Similarity 66.7%; Pred. No. 2.3e-17;  
Matches 289; Conservative 0; Mismatches 128; Indels 16; Gaps 4;

14 TGGCCAGGCGCATGAGCCAGGCCACCA--GCCCAACATCTGTATGACGGAGCAACT 70  
13954 TGGCTGAGCAAGAGAGCGCAATGTAACAATCCAGCTACCAATGATGACGAAGGCAATT 14013  
71 TCAAGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGCGCAATGCGCC 130  
14014 TTAGGAACCAAGAAAGACTGTTAAGTTCATATGTGCAAAAGGCGCACATAGCCA 14073  
QY 131 GCAACTGCCCGCCCCCGCAAGAGGCTGTGGAAGTGGCGCAAGAGGCGCACAGCA 190  
14074 AAAATTGCAAGGCGCCCTTAGGAAAGGCGTGTGGAATGTGGAAGAGAAAGAACCA 14133  
Db 191 TGAAGACTGACCGAGCGCCAGCCCACTTCTCCGAGAGACTGCGCTTCCCGCAGG 250  
14134 TGAAGATTGATCTGAGAGACAGGCTTA-TTTTGGAGAAAGATCTGCGCTTCCCAAG 14192  
QY 251 GCAAGGCGCGGAGTTCCCGAGGAGAAACCGCGCAACAGCCCAACAGCCGCGAGC 310  
14193 GGAAGGCGAGGAAATTTCTTACAGAGACAGAGCCCAACAGCCCAAGAGAGAGC 14252  
Db 311 TGCAGTGGCGCG-----CGAACACCCCGGAGCGGCGCGGCGGCGGCGGCGGCA 364  
14253 TTCAAGTTTGGGGAAGAGAACCACTCTCTCAAGAGAGAGGCGGATGACAGAGAA 14312  
QY 365 -----CCCTGAACCTTCCCGACATCACTCTGTGAGAGCGCCCTGTGAGCATCAAG 418  
14313 CTGTATCTTTAGCTTCCCTCAAGTCACTCTTGGAGGAGACCCCTGTGACATAACA 14372  
Db 419 TGGCGGCGGAGAT 431  
14373 GGGGAAGTGACAT 14385

## RESULT 7

US-10-519-531-2  
Sequence 2, Application US/10519531  
Publication No. US20050244429A1

GENERAL INFORMATION:  
APPLICANT: Folks, Thomas M.  
TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR  
FILE REFERENCE: 14114.0373U2  
CURRENT APPLICATION NUMBER: US/10/519,531  
CURRENT FILING DATE: 2004-12-27  
PRIOR APPLICATION NUMBER: PCT/US03/20325  
PRIOR FILING DATE: 2003-06-27  
PRIOR APPLICATION NUMBER: 60/392,630  
PRIOR FILING DATE: 2002-06-27  
NUMBER OF SEQ ID NOS: 8  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 2  
LENGTH: 1503  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence:/note =  
OTHER INFORMATION: synthetic construct  
US-10-519-531-2

Query Match 6.3%; Score 154.6; DB 6; Length 1503;  
Best Local Similarity 67.6%; Pred. No. 4.5e-17;  
Matches 282; Conservative 0; Mismatches 119; Indels 16; Gaps 4;

14 TGGCCAGGCGCATGAGCCAGGCCA---GCGCAACATCTGTATGAGGCGGCAACT 70  
1088 TGGCTGAAGCAATGAGCCAAAGTAACAAATCCAGCTACCATATGATACAGAAAGCAATT 1147

QY 71 TCAAGGCGCCCAAGCGCATCATAGTGTCTCAACTGCGGCAAGAGGCGCACATGCGCC 130

Db 1148 TTAGGAACCAAGAAAGACTGTTAAGTGTTCATATGTGCAAGAGGCGCACATAGCCA 1207

QY 131 GCAACTGCCCGCCCCCGCAAGAGGCTGTGGAAGTGGCGCAAGAGGCGCACAGCA 190

Db 1208 AAAATTGCAAGGCGCCCTTAGGAAAGGCGTGTGGAATGTGGAAGAGAGCACCAAA 1267

QY 191 TGAAGACTGACCGAGCGCCAGGCCCACTTCTCCGAGAGACTGCGCTTCCCGCAGG 250

Db 1268 TGAAGATTGATCTGAGAGACAGGCTTA-TTTTGGAGAAAGATCTGCGCTTCCCAAG 1326

QY 251 GCAAGGCGCGGAGTTCCCGAGGAGCAACCGCGCAACAGCCCAACAGCGCGAGC 310

Db 1327 GGAAGGCGAGGAAATTTCTTCAAGAGAGAGAGAGCCCAACAGCCCAAGAGAGC 1386

QY 311 TGCAGTGGCGCG-----CGAACACCCCGGAGGCGCGGCGGCGGCGGCGGCA 364

Db 1387 TTCAAGTTTGGGGAAGAGACAACTCTCTCAAGAGAGAGCGGATGACAGAGAA 1446

QY 365 -----CCCTGAACCTTCCCGACATCACTCTGTGAGAGCGCCCTGTGAGCATCA 415

Db 1447 CTGTATCTTTAGCTTCCCTCAAGTCACTCTTGGAGAGAGCCCTGTGACATAA 1503

## RESULT 8

US-10-507-928-3  
Sequence 3, Application US/10507928  
Publication No. US20050266024A1

GENERAL INFORMATION:  
APPLICANT: POWDERMIL LIMITED AND GLAXO GROUP LIMITED  
TITLE OF INVENTION: ADJUVANT  
FILE REFERENCE: N.88232B GCM  
CURRENT APPLICATION NUMBER: US/10/507,928  
CURRENT FILING DATE: 2004-09-17  
NUMBER OF SEQ ID NOS: 12  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 3  
LENGTH: 1503  
TYPE: DNA  
ORGANISM: Artificial sequence  
FEATURE:  
OTHER INFORMATION: nucleotide sequence of p55 gag insert in pGagOprpr2  
US-10-507-928-3

Query Match 5.7%; Score 141.4; DB 6; Length 1503;  
Best Local Similarity 69.0%; Pred. No. 6.1e-15;  
Matches 223; Conservative 0; Mismatches 96; Indels 4; Gaps 2;

14 TGGCCAGGCGCATGAGCCAGG---CCACAGCGGCAACATCTGTATGAGGCGGCAACT 70  
1088 TGGCGGAAGCAATGAGCCAGGTGACGAATCCGCAACATCATGATGACAGAGGGAAT 1147  
QY 71 TCAAGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGCGCACATCGGCC 130  
1148 TCCGCATCAAGCGGAATGTGAAAGTTCATATGCGGCAAGAGGAGGTATCCGCC 1207  
Db 131 GCAACTGCGCGGCGCCCGCAAGAGAGGCTGTGGAAGTGGCGCAAGAGGCGCACAGCA 190  
1208 GCACTGTGCGGCGCCCTTAGAGAAAGAGGTGTGGAAGTGGCGCAAGAGGAGCAACGCA 1267  
QY 191 TGAAGACTGACCGAGCGCCAGGCCCACTTCTCCGAGAGACTTGGCTTCCCGCAGG 250  
1268 TGAAGACTGTAAGAGAGAGAGGCA--TTTCTTGAAGAAATTTGGCGAGCTACAGAG 1326  
QY 251 GCAAGGCGCGGAGTTCCCGAGGAGAGAAACCGCGCAACAGCCCAACAGCGCGAGC 310  
1327 GGAAGGCGAGGAAATTTCTTCAAGAGAGAGAGAGCCCAACAGCCCAAGAGAGC 1386  
Db 311 TGCAGTGGCGGCGCAACCC 333  
1387 TTCAAGTCCGAGGTGAGAGCAC 1409



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RESULT 9
US-11-029-465-3
; Sequence 3, Application US/11029465
; Publication No. US20050256070A1
; GENERAL INFORMATION:
; APPLICANT: Braun, Ralph P.
; APPLICANT: Thomsen, Lindy
; APPLICANT: Van-Wely, Catherine
; APPLICANT: Erli, Peter
; TITLE OF INVENTION: Adjustable
; FILE REFERENCE: 033267-015
; CURRENT APPLICATION NUMBER: US/11/029,465
; CURRENT FILING DATE: 2005-01-06
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 1503
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: nucleotide sequence of the p55 gag insert in
US-11-029-465-3

Query Match 5.7%; Score 141.4; DB 7; Length 1503;
Best Local Similarity 69.0%; Pred. No. 6.1e-15;
Matches 223; Conservative 0; Mismatches 96; Indels 4; Gaps 2;

QY 14 TGGCGAGGCGCATGAGCCAGG--CCACGAGCGCAACATCTGATGACGCGCAACT 70
DB 1088 TGGCGCAACCCATGAGCCAGGCGTGAACATCTCGCAACATCATGATGACGAGGAACT 1147
QY 71 TCAAGGCGCCCAAGCGCATCATCAAGTCTTCAATGCTGCGGCAAGAGGCGCCATGCGCC 130
DB 1148 TCGCAATCAGCGGAGATCGTGAAGTGTTCATATGCGGCAAGAGGCGTCAATCCGCC 1207
QY 131 GCAACTGCG 190
DB 1208 GCAACTGCG 1267
QY 191 TGAAGACTGACCGAGCG 250
DB 1268 TGAAGACTGACCGAGCG 1326
QY 251 GCAAGCG 310
DB 1327 GGAAGACTGATTAATTTCTGCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1386
QY 311 TGCAGGTGCG 333
DB 1387 TTCAGGTCCGAGTGAAGACAC 1409

RESULT 10
US-10-858-730-38
; Sequence 38, Application US/10858730
; Publication No. US20050255568A1
; GENERAL INFORMATION:
; APPLICANT: Bailey, Richard B.
; APPLICANT: Blomquist, Paul
; APPLICANT: Doten, Reed
; APPLICANT: Drieger, Edward M.
; APPLICANT: Madden, Kevin T.
; APPLICANT: O'Leary, Jessica
; APPLICANT: O'Toole, George
; APPLICANT: Trueheart, Joshua
; APPLICANT: Walbridge, Michael J.
; APPLICANT: Yorgey, Peter S.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID
; FILE REFERENCE: 14164-030001

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; CURRENT APPLICATION NUMBER: US/10/858,730
; CURRENT FILING DATE: 2004-06-01
; PRIOR APPLICATION NUMBER: US 60/475,000
; PRIOR FILING DATE: 2003-05-30
; PRIOR APPLICATION NUMBER: US 60/551,860
; PRIOR FILING DATE: 2004-03-10
; NUMBER OF SEQ ID NOS: 364
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 38
; LENGTH: 2736
; TYPE: DNA
; ORGANISM: Streptomyces coelicolor
US-10-858-730-38

Query Match 4.2%; Score 103.4; DB 6; Length 2736;
Best Local Similarity 41.9%; Pred. No. 8.3e-09;
Matches 906; Conservative 0; Mismatches 1236; Indels 21; Gaps 4;

QY 85 CGCATCATCAAGTGTCTTCAACTGCGGCAAGAGGCGCAATGCGCGCAACTGCGCGCC 144
DB 376 CGCAACTCAAGTGTGCG 435
QY 145 CCGCGCAAGAGGCGTGTGGAAGTGTGCGGCAAGAGGCGCGCAATGAGACTGACCG 204
DB 436 GTCTCAACAACTGTGCG 495
QY 205 GAGGCGCGCGCGCAACTTCTTCGCGAGGAGCGCTTCCCGCGCGCGCGCGCGCGCG 264
DB 496 CGGCG 555
QY 265 TTTCCGAGCGAGCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 324
DB 556 CTGGCGGTGTGTGCG 615
QY 325 GACAAACCCCGCGAGCG 384
DB 616 GAGCTGCACTGTGGCG 675
QY 385 ACCCTGTGCGAGCG 438
DB 676 GCGCGCGTCAAGCTTCCCGAGCAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 735
QY 439 GCGCTGTGACACCG 498
DB 736 GACCGCGAGCGCAACCGCAAGTCAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 795
QY 499 TGAAGCGCGCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 558
DB 796 CAGGAGCAAGGATCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 855
QY 559 ATCTGATCGAGTCTGCGCGCAAGAGCGCATCGGCAACCGGTGATGCGCGCGCGCG 618
DB 856 AACTCATCTGAGTACGCGCGTGAACCGAGCACTGTGCGCTGCTCGAGCGCGCGCG 915
QY 619 GTGAACATCATGCGCGCGCAACATGTGACCGCGCGCGCGCGCGCGCGCGCGCGCG 678
DB 916 GAAAGCTTCCCGAATCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 975
QY 679 AGCGCCATGAGACCGTGTGTAAGTGAAGCGCGCGCGCGCGCGCGCGCGCGCGCG 738
DB 976 CTCAGAGCGCACTGATCGCGCAAGACTGTGAGAACCAAGCAAGCGCTTCCCAAGG 1034
QY 739 CAGTGGCGCGTGAACCGAGGAAGTCAAGCGCGCGCGCGCGCGCGCGCGCGCGCG 798
DB 1035 -----CACCGCGCAAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1086
QY 799 AAGAGGCGAGATCAACCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 858
DB 1087 GACTCGCATGTCAAGCTGCGTGTGCGCAACCGCGCGCGCGCGCGCGCGCGCGCG 1146
QY 859 ATCAAGAGAGAGCAAGCAAGTGTGCGCGCAAGTGTGAGCTTCCGCGAGGTGAACA 918
DB 1147 GCGCTGCG 1206

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OY 919 CGCAGCCAGAGATTCTGGAGGTGACGTGGGATCCCCACCGCGCTGAAGAA 978
DB 1207 GTCCGGAGACAGCCGACCGCCACACAGCCCTGGGCAAGCTTTCAGACCGGCTCGGC 1266
OY 979 AAGAGAGGTGACCGTGTGACGTGGGAGAGCTTCTTCAAGCGTCCCTGGAGCAG 1038
DB 1267 GAGAGATCTGGGCTGACCGGACATGCGCGAGATACCGACCAAGCTCTTGGCAGAG 1326
OY 1039 GACTTCGAGAGTACACCGCTTACCATCCCCAGATCAACAAGAGAGAGAGAGAGAGAG 1098
DB 1327 GAACTGCGCTCCCGGAGCGCTGGCCCGCCAGCCCGCCCTCAAGCGCGCCGAGAG 1386
OY 1099 CGCTACAGATACACGTGTGACCGGAGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAG 1158
DB 1387 AAGACCTGGGCGCTTTCAGACCGTCCGCGCGCTGAGAGGTCTTCCGCGCCGAGGTC 1446
OY 1159 AGCATGACCAAGATCTTGAAGCCCTTCC---GGCCCGCAACCCCGAGATCGATCTAC 1215
DB 1447 ATCGAGCTTACATCATCTTCATGTGCGAGGCGCGACGATCTTTCGCGCGCGGTGA 1506
OY 1216 CAGGCCCCCTGATCGTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1275
DB 1507 CTGACCGGAGAGCGGCGCTGATGACCTGACGCGCGCTGGGAGAGATCGGAGATCGTG 1566
OY 1276 GAGCTGGCAAGACCTG---CTGCGCTGGGCTTTCACACACCGCCGACAAAGAGAGAGAG 1332
DB 1567 CCGCTGTGAGAGACACCGAG 1626
OY 1333 AAG 1392
DB 1627 GCGGAG 1686
OY 1393 CCGATGAG 1452
DB 1687 GAGTACTCCGAGCTTCTCAAGTTTCGAGTACACACAGAGAGAGAGAGAGAGAGAG 1746
OY 1453 AAGTGAAGTGGGAG 1512
DB 1747 GCCAG 1806
OY 1513 CTGGGAG 1572
DB 1807 GAGGAG 1866
OY 1573 CTGGGAG 1632
DB 1867 CCTGGGAG 1926
OY 1633 AAG 1692
DB 1927 AAGTACTCATCCCGCTGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1986
OY 1693 CAG 1752
DB 1987 CAGGAG 2046
OY 1753 AAG 1812
DB 2047 GCGGAG 2106
OY 1813 TGGGAG 1872
DB 2107 CCGAG 2166
OY 1873 AAG 1932
DB 2167 CTGGGAG 2226
OY 1933 GTGAAG 1992
DB 2227 ATCCGAG 2286

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OY 1993 GAGGAG 2052
DB 2287 GAGTCCGAG 2346
OY 2053 CGCAG 2112
DB 2347 GAG 2406
OY 2113 CAGCTGAG 2172
DB 2407 GACTGCGAG 2466
OY 2173 CTGGGAG 2232
DB 2467 TTGAG 2526
OY 2233 GAG 2235
DB 2527 GAG 2529

RESULT 11
US-10-858-730-142
; Sequence 142, Application US/10858730
; Publication No. US20050255568A1
; GENERAL INFORMATION:
; APPLICANT: Bailey, Richard B.
; APPLICANT: Blomquist, Paul
; APPLICANT: Doten, Reed
; APPLICANT: Diggers, Edward M.
; APPLICANT: Madden, Kevin T.
; APPLICANT: O'Leary, Jessica
; APPLICANT: O'Toole, George
; APPLICANT: Trueheart, Joshua
; APPLICANT: Walbridge, Michael J.
; APPLICANT: Yorgay, Peter S.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID
; FILE REFERENCE: 14184-030001
; CURRENT FILING DATE: 2004-06-01
; PRIOR FILING DATE: 2003-05-30
; PRIOR APPLICATION NUMBER: US 60/475,000
; PRIOR FILING DATE: 2004-03-10
; NUMBER OF SEQ ID NOS: 364
; SOFTWARE: FASTSEQ for Windows Version 4.0
; SEQ ID NO 142
; LENGTH: 3513
; TYPE: DNA
; ORGANISM: Streptomyces coelicolor
; US-10-858-730-142

Query Match 4.2%; Score 102.6; DB 6; Length 3513;
Best Local Similarity 43.8%; Pred. No. 1.1e-08;
Matches 909; Conservative 0; Mismatches 1124; Indels 42; Gaps 9;

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Qy 369 GAATTTCCCCAGATCACTCTGTGGAGCGCCCTGTGTAGCATCAAGTGGCGGCCA 428
Db 417 G-----CTCCCACTCTGGGCGAGCCCGTACACCGTCTGTGGGAGCGCTACCA 467
Qy 429 GATCAAGAGAGCCCTGTGTGACACCGGCGCCGACGACCGTCTGTGAGAGATGAGCT 488
Db 468 GGGCAACGCGGAGGACTGTGTGGCGGCGCGGACGCACTGTGTGTGAGACACGCA 527
Qy 489 GCGCGGCAAGTGGAGCCCAAGATGATCGCGGCACTCGCGGCTTCATCAAGTGGCCA 548
Db 528 GAACTGCTCCAGACCAAGGCTCTGGTGTCTGGCGCGCGCGCTTGGAGCTCTCG 587
Qy 549 GTACGACAGATCTGTATGAGATCTGCGGCAAGAGGCAATCGGACCGTGTATCGG 608
Db 588 CCTCGACCTGGCGCTGATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 647
Qy 609 CCCCACCCCGGTGAACATATGGCGCGCAATGTCTGACCCGAGCTGGGTGTGACCTTGA 668
Db 648 CTG-----GAGATGTGGGCGCGCTCACCGGCTGTGGAACCGCTTGGCATGACATGAT 701
Qy 669 CTTCGCCATCAGCCCATGAGACCGGTGCGCGTGAAGCTGAAGCCCGCATGAGCGGCC 728
Db 702 CGGCTGAAGTGGCGACCGGCGCG-----CGAGATGAGCGAGCATCTGCGCTACCTGCC 758
Qy 729 CAAGTGAAGCAGTGGCCCTGTGACCGAGGAGAGATCAAGGCTGTGACCGCATCTGCA 788
Db 759 CGGCACTCCCGGATCCGCTGACCTGTGACCTGTGACCGCGGTGTGTGTGTGTGTGT 818
Qy 789 GGAATGTGAGAGAGAGAGGAGATC---ACCAAGATCGCCCGGAGAACCTTCAACAC 845
Db 819 GGAACGCGGCCACTACCGCTGACCGCGCGGAGCTGGCGGACGCAAGAACCTTCT 878
Qy 846 CCCCCTGTGTGATCAAG 905
Db 879 GGGGAGTACGGCTGTCTGTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 938
Qy 906 CGAGCTGAACAGAGCGGACCGGACCTTCTGTGAGAGTGTGAGCTGGG-----ATCCCCACCC 962
Db 939 CGAGGTGTGTGAG 998
Qy 963 CGCCCGGCTGAAG 1022
Db 999 CGGCGCGGCTGT 1049
Qy 1023 CGTGTCCCTGAG 1082
Db 1050 CCGT 1109
Qy 1083 CGAGAGCCCGGAGT 1142
Db 1110 GGAACGCGCTGT 1169
Qy 1143 CAGCATCTTTCAG 1202
Db 1170 CATGT 1229
Qy 1203 GATGT 1262
Db 1230 GGGCGGCGGT 1289
Qy 1263 CGCGAAGATGTGAG 1322
Db 1290 CGT 1349
Qy 1323 GAAAGCAG 1382
Db 1350 CGAG 1409
Qy 1383 GACCGTGTGAG 1442
Db 1410 CGGCGCGGCGGT 1469
Qy 1443 GCTGT 1502

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Db 1470 GAAAGTGTGAGATGTGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1529
Qy 1503 GTGCAAGT 1562
Db 1530 GTTCGAGATCTGT 1589
Qy 1563 CGAGTGTGAGT 1622
Db 1590 CAAGGACCGGCTGT 1649
Qy 1623 GAGCCCGAG 1682
Db 1650 GCAAGACAG 1709
Qy 1683 CGAGTGTACAG 1742
Db 1710 GCTCAACTGT 1769
Qy 1743 CGCCGACAG 1802
Db 1770 CGCGAG 1826
Qy 1803 CATGTGTATCTGT 1862
Db 1827 CGACTGT 1883
Qy 1863 GACGT 1922
Db 1884 GCTTGT 1943
Qy 1923 CCCCCCTGT 1982
Db 1944 CTTCCCGT 2003
Qy 1983 CTTTGT 2042
Db 2004 ACAGGACCTGT 2060
Qy 2043 CGACCGGCGCGGAG 2102
Db 2061 CTTGT 2120
Qy 2103 GAGGCGCATCTGAGT 2162
Db 2121 GTTGT 2180
Qy 2163 CGAGT 2197
Db 2181 GGAAG 2215

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RESULT 12
US-10-522-037-2
; Sequence 2, Application US/10522037
; Publication No. US20050282166A1
; GENERAL INFORMATION:
; APPLICANT: LIBRAGEN
; TITLE OF INVENTION: Method for the expression of unknown environmental DNA into adapt
; FILE REFERENCE: B0149W0
; CURRENT APPLICATION NUMBER: US/10/522,037
; CURRENT FILING DATE: 2005-01-24
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 37507
; TYPE: DNA
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: DNA sequence of clone FS3-135.
US-10-522-037-2

```

Query Match 3.6%; Score 88.2; DB 6; Length 37507;  
Best Local Similarity 42.7%; Pred. No. 2.2e-06;  
Matches 1033; Conservative 0; Mismatches 1348; Indels 36; Gaps 10;

QY 3 CGAGCCCAATGCGCGGAGCCATGAGCCAGGCGCAACGCGCCCAATCTTATGAGG 62  
DB 12408 CGGCGAGGCGGTGAGGTGTGTGAATCTGCTCTTCGCGAGGCGCATTCGCGCACTT 12467  
QY 63 CAGCACTTCAAGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGCGAGAGGCGCA 122  
DB 12468 GCGCGCGCTGCGCGCTTTCGCGCGCTTCAATGAGCTCGCGCAAGCGGACTTACAGAGA 12527  
QY 123 CATGCGCGCAACTGCGCGCGCGCGCGCAAGAGGCTGTGGAAGTGGCGCAAGAGG 182  
DB 12528 CAGCGCATGCGCGTGGCGCGCGCTTCGCAACAACATCTGTACTTTCGCGGTGATCCCA 12587  
QY 183 CCAACGATGAGAGTGCACCGAGCGCGCAAGCTTCTTCGCGAGAGACCTGCGCTT 242  
DB 12588 CCAAGCTCATGAGAGAGCGCGCGCGCATCTGCGCGCGCTTTCAGAGCTGATGAGCT 12647  
QY 243 CCCCCGAGGCGAGCGCGGAGTTCCCGAGCGAGAGAACCGCGCGCAACAGCGCCACAG 302  
DB 12648 CTTGAGCAGG-----GGTGTCTTCGCGCGCTGCTTACCGCGCTTTCGCGCGCACCA 12701  
QY 303 CGCGAGCTGCAAGTGCAGCGCGCGAGCAACCCCGCGAGCGCGCGCGCGCGCGAGG 362  
DB 12702 GCGCGGTGAAGCTTTCGCTCAATGAGAGCATGCGCGCAGATCGGAGAGGTGTGCTGTC 12761  
QY 363 CACCTGAACTTCCCGAGATCACTCTGTGCGAGCGCGCGCTGTGTGATCAAGGTGG 422  
DB 12762 GTTTCGCGCAGCGGTGAGAGCGAGCGCGCGCGCGCGCGCGCGCGCGCGAGTGTGCT 12821  
QY 423 CGGCGCATGACAGAGGCGCGCTGCTGAGCACCGGCGCGCGAGCAACGCTGTGAGGA 479  
DB 12822 GTTCGCGAGAGCGCATGACTCTGTCACCGCGCGCTGTTCGCGCTTTCGCGCACCG 12881  
QY 480 GATGAGCTTGCAGCGCGAGTGAAGCGCGAGATGATCGCGAGTTCGCGCTTCAATCA 539  
DB 12882 GCAGTGTGTGTGAGAGAGGAGTTCGCGCGCATCTGTGTCTGTCAGAGCGCGCGCA 12941  
QY 540 GGTGCGCGAGTGAAGCAGATCTGTGATGATCTGCGCGAGAGAGCGCATTCGCGACT 599  
DB 12942 GTGCGTGAAGCAGAGCGCGGTGCGCGCATCTGAGAGCGCGCGCGCGCGGTGATGCG 13001  
QY 600 GCTGATGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 659  
DB 13002 GAGGCGGTGAGCATCAACGAGCGCGCTTCGCGAGAGCGCGTGTTCGCGAGTTCGCGG 13061  
QY 660 CACCGTGAATCCCGCATCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCAT 719  
DB 13062 CGCGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTT 13118  
QY 720 GAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 779  
DB 13119 CATCAACCAATGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 13178  
QY 780 CATTCGAGAGAGTGAAGAGAGAGAGAGATCAACAGATCGCGCGCGCGCGCGCGCTA 839  
DB 13179 CGCGCATCTGAGCAGCTCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTC 13238  
QY 840 CAACACCCCGGTGTTTCGCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 899  
DB 13239 GCGCAGCAGCGCTGTTCGCGCACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTT 13295  
QY 900 CTTTCGCGAGCTGAACAGCGCACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 959  
DB 13296 CCTGAGGCGCATTCGCGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTG 13355  
QY 960 CCGCGCGCGCGCTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1019  
DB 13356 GCGCGCGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 13415  
QY 1020 CAGGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1073

DB 13416 GACGCAATGAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 13475  
QY 1074 CATCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1133  
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DB 13536 CTTCTTCCCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13595  
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DB 13596 GAGAGACGACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCT 13655  
QY 1254 CAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1313  
DB 13656 CGAGCTTCGCGAGATGTTCAACGAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCAT 13715  
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DB 13716 CCGCGCGAGCGCGCTGATACGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTGAT 13775  
QY 1374 CGACAGTGAACGCTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1433  
DB 13776 GCGCGTGAAGCTGTGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGTATGTC 13835  
QY 1434 CATCAAGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1493  
DB 13836 GCTCTTCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTGAAG 13895  
QY 1494 GCGCGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1553  
DB 13896 CCGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 13955  
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DB 13956 GTACGCGCGCGAGCTGATCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCTGATGAC-G 14014  
QY 1614 CGTGTACTAGAGAGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1670  
DB 14015 CGGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 14074  
QY 1671 CAGTGAACCTTACAGATTTACAGAGAGCGCTTCAAGAGAGCTGAAGAGCGCGAGATG 1730  
DB 14075 AGTGAAGAGAGAGCTGATCAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 14134  
QY 1731 CAGAGTGCAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1790  
DB 14135 CAGGCGCTGCGCGGTGAGTTCGCGCATCAAGCGCGCTTTCGCGCGCGCGCGCGCGCG 14194  
QY 1791 CGCGATGAGAGAGCATGTGATCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1850  
DB 14195 CAGATTTTCGAGAGCGCTGCGCGCTTTCAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14254  
QY 1851 GAGAGCTTGAAGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1910  
DB 14255 GGTGAAGAGAGGTGCGCGAGAGCTGCGCATTCGCGAGCTGAGAGAGAGAGAGAG 14311  
QY 1911 GTTGTGAACAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1970  
DB 14312 CGCGGTGCGCGCGAGATCAAGCGCGCATTCGCGCGCGCGCGCGCGCGCGCGCGCGCTA 14371  
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DB 14372 CAACTACTGCGCTTTCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 14431  
QY 2031 CGGCTTACGTGAGCGAGCGCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2090  
DB 14432 CAAATACGAGAGCGCTGCGCTGCGCGCGAGAG-----GCTGATGTCGCGCGAGCGCGCT 14486  
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QY 2211 CGAGCTGTGTAACAGATCATCGAGAGCTGATCAAGAGAGAGGTACTGACCTG 2270  
Db 14607 CATCGTGACGACGAGTGTGTGCAACAAGCATTCGATGGGATTCAGACTCTCGGGCGC 14666  
QY 2271 GGTGCCC---GCCACAAAGGAGCATGCGCGGCAACAGAGCATGACAACTGTGAGCA 2327  
Db 14667 CAAGGCGATGCGCTTCCCGCAACAAGCATGCGGCGCTGAGACGCTGCTGCGCGCA 14726  
QY 2328 GGGCATTCGCAAGTGTCTGTCTGGAAGGATTCGATGCGGCGATGATCTACAGTA 2387  
Db 14727 GGGCGGCCACTTCGAGCGGCTGTGATGTGAGGGCGTCTACAGCATGAGCGGGA 14786  
QY 2388 CATGACGACCTGTACG 2404  
Db 14787 CTACCCGAGCTGCGCG 14803

RESULT 13  
US-11-058-727-5  
; Sequence 5, Application US/11058727  
; Publication No. US20050261483A1  
GENERAL INFORMATION:  
; APPLICANT: Andre R. Abad  
; APPLICANT: Ronald D. Flanagan  
; APPLICANT: Rafael Herrmann  
; APPLICANT: Theodore W. Kahn  
; APPLICANT: Albert L. Lu  
; APPLICANT: Billy Fred McCutchen  
; APPLICANT: James K. Presnail  
; APPLICANT: James F.H. Wong  
; APPLICANT: Cao-Guo Yu  
TITLE OF INVENTION: Genes Encoding Proteins With Pesticidal  
FILE REFERENCE: 35718/287809  
CURRENT APPLICATION NUMBER: US/11/058,727  
CURRENT FILING DATE: 2005-02-15  
PRIOR APPLICATION NUMBER: 60/391,786  
PRIOR FILING DATE: 2002-06-26  
PRIOR APPLICATION NUMBER: 60/460,787  
PRIOR FILING DATE: 2003-04-04  
PRIOR APPLICATION NUMBER: 10/606,320  
NUMBER OF SEQ ID NOS: 134  
SOFTWARE: FastSeq for Windows Version 4.0  
SEQ ID NO 5  
LENGTH: 2010  
TYPE: DNA  
ORGANISM: Artificial Sequence  
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; NAME/KEY: CDS  
; LOCATION: (1)...(2010)  
OTHER INFORMATION: Maize optimized Cpy1218-1  
FEATURE:  
; NAME/KEY: misc\_feature  
; LOCATION: (0)...(0)  
; OTHER INFORMATION: mol218-1  
US-11-058-727-5

Query Match 3.5%; Score 85.2; DB 7; Length 2010;  
Best Local Similarity 43.5%; Pired. No. 7.3e-06;  
Matches 491; Conservative 0; Mismatches 633; Indels 6; Gaps 2;  
QY 197 ACTGACCGAGCGCCGACCACTTCTTCGAGAGACCTGCGCTTCCCGAGGCAAG 256  
Db 881 ACCCCATGAGACCAAGGCCCACTCAACCGAGGTGTACACGACCGCTCGGCGCG 940  
QY 257 CCGCGAGTTCCCGAGGACGAACCGGCGCAACAGCCCAACGCGGAGCTGCAAG 316

Db 941 TGAAGTGTCTCCATCCGCTCTTGTGTACGACAAAGCCCAAGCTTCCGCTGTGATGAGT 1000  
QY 317 TGGCGGGAGCAACCCCGGACGAGCGCGGCGGAGCGGCGGACACCTGAACTTCC 376  
Db 1001 CCTCGTATCCGCGCGCGGACAGTGTGTGATTAATCAACCGGCTCATCGTGTACACC 1060  
QY 377 CCAGATCACTCTGTGGAGCGCCCTGTGTAGCATCAAGTGGCGGCGCATCAAG 436  
Db 1061 AGTCCGCTCATCTCTCCGCGCTCAATCCGCACTGGGCGGCGGACAGATCTCT 1120  
QY 437 AGGCTTGTGACACCGGCGCGGACGACACCTGTGTGAGAGATGAGGCTGTCCGGA 496  
Db 1121 ACCACCGGTGTCCGCGGCTTCAACCTTCAGCAATGTACGACCAACGAACCTTC 1180  
QY 497 AGTGAAGCCCAAGATGATCGGCGGATCGGCGGCTTATCAAGGTGCGGCAAGTAC 556  
Db 1181 ACTCACTTCACTTCACTTCACTTCACTTCACTTCACTTCACTTCACTTCACTTCA 1240  
QY 557 AGATCTGTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 616  
Db 1241 CCGTCTCTGACAT---CGTGTACCGCGCTACACCTACATCTTCTTGGCATGCGG 1297  
QY 617 CCGTAACATCATCGGCGGCAACATGCTGACCCAGCTGGGCTGACACCTGAACTTCCCA 676  
Db 1298 AGTGAAGTCTTCACTGATGATGATGATGATGATGATGATGATGATGATGATG 736  
QY 677 TCAAGCCCATGAGACCGGCGCGGATGATGATGATGATGATGATGATGATGATGAT 736  
Db 1358 CCGTGTCCAGGACATCATGCTTCAACCGGCGGATGATGATGATGATGATGATGAT 1417  
QY 737 AGCACTGCGCCCTGACCGGAGGAGATCAAGGCGCTGACCGCATCTGCGAGAGATG 796  
Db 1418 CCTCCGACGAGCCCACTACAGATCTTCAACCGGCGGATGATGATGATGATGATG 1477  
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QY 1037 AGGACTTCGCAAGTACCGGCTTCAACATCCCGAGATCAACAAAGAGACCCCGGCA 1096  
Db 1718 TGAAGAGGCGGCAAGTACCGGCGGCTTCAACATCCCGAGATCAACAAAGAGTGC 1777  
QY 1097 TCCGCTACAGTACAAAGTGTGCGGAGGAGTGAAGGAGGAGGAGGAGGAGGAGGAG 1156  
Db 1778 TCCAGTGAAGACCGCGGAGATTCAGATGCCAAGACATGAACCCCGGCGGAGACTCA 1837  
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Db 1898 CCTCGGCTTCAAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1957  
QY 1274 AGGAGTGGCAAGCACTGTGCGGTGGGCTTCAACCAACCCCGGCAAG 1323  
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RESULT 14

US-11-108-389-5  
 ; Sequence 5, Application US/11108389  
 ; Publication No. US20050261188A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Andre R. Abad  
 ; APPLICANT: Ronald D. Flannagan  
 ; APPLICANT: Rafael Herrmann  
 ; APPLICANT: Theodore W. Kahn  
 ; APPLICANT: Albert L. Lu  
 ; APPLICANT: Billy Fred McNeilchen  
 ; APPLICANT: James K. Presnail  
 ; APPLICANT: James F.H. Wong  
 ; APPLICANT: Cao-Guo Yu  
 ; TITLE OF INVENTION: Genes Encoding Proteins with Pesticidal  
 ; FILE REFERENCE: 35718/291049  
 ; CURRENT APPLICATION NUMBER: US/11/108,389  
 ; PRIORITY FILING DATE: 2005-04-18  
 ; PRIORITY FILING DATE: 2002-06-26  
 ; PRIORITY FILING DATE: 2003-04-04  
 ; PRIORITY FILING DATE: 2003-06-25  
 ; PRIORITY FILING DATE: 2003-06-25  
 ; NUMBER OF SEQ ID NOS: 134  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 5  
 ; LENGTH: 2010  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; NAME/KEY: CDS  
 ; LOCATION: (1)...(2010)  
 ; OTHER INFORMATION: Maize optimized Cpy1218-1  
 ; NAME/KEY: misc\_feature  
 ; LOCATION: (0)...(0)  
 ; OTHER INFORMATION: mol1218-1  
 ; US-11-108-389-5

Query Match 3.5%; Score 85.2; DB 7; Length 2010;  
 Best Local Similarity 43.5%; Pred. No. 7.3e-06;

Matches 491; Conservative 0; Mismatches 633; Indels 6; Gaps 2;

197 ACTGACCGAGCGCGGCAACTTCTCCGAGAGACCTGCGCTCCCGGAGCAAG 256  
 881 ACCCATGAGAGCAAGCCAGCTCAACCGGAGGTGTACACCGACCCGCTCGGCCCG 940  
 257 CCCGCGAGTTCCCGAGAGCAAGCCGCGCAACAGCCCGACCGCGAGCTGCAAG 316  
 941 TGAACGATGCTCTCATCGGCTCTTGATGACAGCAAGCCCGCAAGCTTGATGAGT 1000  
 317 TGGCGGCGAGCAACCCCGGAGCGAGCGCGCGCGAGCGCGAGCGCAAGCTTGA 376  
 1001 CCTCCGATGATCGCGCGCGAGCGGTGTGATCAATCAACGCGCTCACTGTACACC 1060  
 377 CCCAGATCAACCTGTGAGAGCGCGCGCGGTGATCAAGGTGAGCGCGCAATCAAG 436  
 1061 AGTCCCGCTCATCTCTCCCGCGGTACATCCGCACTGAGCGCGCGCAAGATCTCT 1120  
 437 AGGCGCTGCTGAGACCGGCGCGAGCAACCGGTGAGAGAGATGAGCTGCGCGCA 496  
 1121 ACCACCGGCTGTCCCGGCGCTCAACCTCAAGAGATGATGAGCGCAAGCAAGCTCC 1180  
 497 AGTGAAGCCCAAGATGATGCGCGCGATCGCGGCTTATCAAGGTGCGCAAGTACAG 556  
 1181 ACTCCACCTCCACCTTTCATCTTCAACCACTACAGATTTAAAGACCTTCTCAAGAG 1240  
 557 AGATCTGATGAGATGCGCGCAAGAGCGCATGAGCGAGCGGTGATGCGCGCGCAAG 616  
 1241 CCGTGTCTCTGACAT---CGTGTACCGCGGTACACTATCTTCTTCCGAGTCCGG 1297  
 617 CCGTGAACATGATGCGCGCAAGATGATGAGCGAGCGGTGACCTTGAACCTTCCCA 676

1298 AGTGTAGTTCTTATGATGAGCAAGCTCAACACCGCGCAAGACCTCAATACAAAC 1357  
 677 TCAGCCCATGAGACCGTCCCGGTGAGAGCTGAAGCGCGCATGAGCGCGCGCAAGTGA 736  
 1358 CCGTGTCCAGAGACATCATCGCTCCACCGGAGCTCCAGAGCTGAGCTCCCGCGAGA 1417  
 737 AGCAGTGGCGCTGACCGGAGAGAGATCAAGGCGCTGACCGCGCATCTGAGAGATGAG 796  
 1418 CCTCGACAGCCCACTAGAGTCTTATCCACCGCGCTTGCACATCATCTCATCC 1477  
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 1538 ACCTCAACACACATCTACTCCGACAGATCCCGCGCGTGAAGTGTGGG 1597  
 917 AGCGCACCGAGACTTCTGAGAGTGCAGCTGGGCAATCCCGCGCGCGCTGAAGA 976  
 1598 ACAACCTCCCTTGTGCGCGGTGAGAGGCGCGCGCACACCGCGCGAGCTCTCC 1657  
 977 AGAAGAGAGCGTGAACGTGCTGAGAGTGGCGAGCGCTTACTTACAGCTGCGCTGAG 1036  
 1658 AGTACACCGCTTCAACCGCTCCGTTGGGACACCTCTTCCCTGCGCGTACGCGCTG 1717  
 1037 AGGACTTCCGCAAGTACACCGCTTCAACATCCCGAGCATCAACAGAGACCGCGCA 1096  
 1718 TGAAGAGGCGCGCAAGTACCGCGCTCCGCTACCGCACTGAGCGCGCAATCTGTG 1777  
 1097 TCCGCTACAGTACCAACGTGCTGCCCGAGGCTGAGAGGCGAGCGCGAGCATCTTCC 1156  
 1778 TCCAGCTGAACGAGCGCGCATGATGAGTCCAGAGCATGAGACCGCGAGAGACTTCA 1837  
 1157 GCAGATGAC---CAAGATCTGAGACCTTCCCGCGCGCGCAACCGCGAGATGTGATCT 1213  
 1838 CTTCAGAGACTTCAAGAGTGGCGGAGCGCATACACACCTTCAACCTTCCGAGAGCTCT 1897  
 1214 ACCAGGCGCGCTGTACGTGAGGAGCGAGCGCTGAGATGCGCGAGCGCGCAAGTGC 1273  
 1898 CCTCGCGCTCAAGACCAACCTCGCGAGAGACCCCAACTCACCTCTTCCGCGATCGTGT 1957  
 1274 AGAGCTGCGCAAGACCTGCTGCGGTGGCTTCAACCAACCGCGCAAG 1323  
 1958 ACGTGACCGCATGAGTTCATCCCGTGAACAGACTTACAGAGCGGAG 2007

RESULT 15

US-11-075-185-57  
 ; Sequence 57, Application US/11075185  
 ; Publication No. US20050266434A1

; GENERAL INFORMATION:

; APPLICANT: REEVES, CHRISTOPHER D

; APPLICANT: JULIEN, BRYAN

; TITLE OF INVENTION: BIOSYNTHETIC GENE CLUSTER FOR AMBRUTICINS

; FILE REFERENCE: 010099.03

; CURRENT APPLICATION NUMBER: US/11/075,185

; PRIORITY FILING DATE: 2005-03-07

; PRIORITY FILING DATE: 2004-03-08

; PRIORITY FILING DATE: 2004-05-04

; NUMBER OF SEQ ID NOS: 61

; SOFTWARE: PatentIn version 3.3

; SEQ ID NO 57

; LENGTH: 1434

; TYPE: DNA

; ORGANISM: Sorangium cellulosum

; US-11-075-185-57

Query Match 3.3%; Score 80.6; DB 7; Length 1434;

Best Local Similarity 44.6%; Pred. No. 4.1e-05;  
Matches 449; Conservative 0; Mismatches 549; Indels 9; Gaps 3;

Job time : 302.667 secs

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Db 176 TACGGCGATGCGCGCGACACCCCGCAAGCCCGCGCTGCGCTGCTC 235
QY 284 GCGCCAAACAGCCCAACAGCCCGAGCTGACAGTGCAGGCAACACCCCGCAAGGAG 343
Db 236 CCGCGCGCGCGCGCGAGACAGCTTACAGGACAGGATGCGACCGCTTTGCGCTGCGG 295
QY 344 CCGGCGCGAGCGCGAGGACCGCTTAACTTCCCGCATCACTTG--TGGCAAGCGCC 400
Db 296 TCGCGCTCGGCGCGAGCGCGAGCGGTGACCCCGCGCTTCCCTGAGCGGAGCTCGCG 355
QY 401 CCGTGTGAGCATCAAGGTGGCGGCGCAATCAAGAGGCGCTGCTGACACCGGCGCG 460
Db 356 GCGCGCGCGCGCGCTGACGTCGACCCCGCGCGCTGAGCGACCTGCAAGGCGCTGT 415
QY 461 ACGACACCGTGTGAGAGATGAGCTGCGCGCAAGTGAAAGCCCAAGATGATCGCG 520
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QY 521 GCATCGGCGGCTTTCATCAAG---GTGCGCGAGTACGACCAAGATCTGATCGAGTCTGCG 577
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QY 698 CCGTGAAGCTGAAGCCCGGCGATGACGCGCCCAAGGTGAAGCATGCGCCCTGACCGAGG 757
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QY 758 AGAAGATCAAGGCGCTGACCGCATGTGAGAGAGATGAGAGAGAGGCAAGATCAACA 817
Db 713 TCGAGTCCAGAGTCCGACCGCGCTCTGCGCGCGCTGCGCGGAAACAGAGCCCGC 772
QY 818 AGATCGGCGCCCGAGAACCCCTTCAACACCCCGGTGTTCCCATCAAGAGAGAGACAGCA 877
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QY 938 AGGTGCACTGTGGCATTCGCCCAACCCCGCGGCTTGAAGAAAGAAAGACGTGACCGTGC 997
Db 893 GGCACAGTGGAGCGTGGCATCTGTGTGACCAAGTCGAGCTGATGGCGAGAGCGTGC 952
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Db 1073 TGTTCAGCGCGAGCTCGGCGCGGCGAGCATCAACCGCGCTGAGCTTACGCCAAG 1132
QY 1178 AGCCCTTCCGCGCGCGCAACCCGAGATGTGATCTAACAGGCGCCCG 1224
Db 1133 CGAATTTCATCGAGCGACCCGAGAGAGCGTGTCTCATCTGATCACCC 1179
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GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: December 30, 2005, 07:51:40 ; Search time 422.635 Seconds  
(without alignments)  
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Title: US-09-610-313B-32

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Scoring table: IDENTITY\_NUC  
Gapop 10.0, Gapext 1.0

Searched: 1303057 seqs, 888780828 residues

Total number of hits satisfying chosen parameters: 2606114

Minimum DB seq length: 0  
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Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

| Result No. | Score  | Query Match | Length | ID               | Description       |
|------------|--------|-------------|--------|------------------|-------------------|
| 1          | 2040   | 83.0        | 2300   | US-09-475-515-83 | Sequence 83, Appl |
| 2          | 2019.2 | 82.2        | 2306   | US-09-475-515-82 | Sequence 82, Appl |
| 3          | 1998.4 | 81.3        | 2312   | US-09-475-515-84 | Sequence 84, Appl |
| 4          | 1915.8 | 78.0        | 4319   | US-09-475-515-6  | Sequence 6, Appl  |
| 5          | 1882.2 | 76.6        | 8908   | US-09-393-795-12 | Sequence 12, Appl |
| 6          | 1872.8 | 76.2        | 2299   | US-09-475-515-81 | Sequence 81, Appl |
| 7          | 1852   | 75.4        | 2305   | US-09-475-515-80 | Sequence 80, Appl |
| 8          | 1762   | 71.7        | 3012   | US-09-393-795-10 | Sequence 10, Appl |
| 9          | 1626.6 | 66.2        | 4307   | US-09-552-950-2  | Sequence 2, Appl  |
| 10         | 1607.4 | 65.4        | 4307   | US-09-936-572-2  | Sequence 2, Appl  |
| 11         | 1599.4 | 65.1        | 4327   | US-09-936-572-14 | Sequence 14, Appl |
| 12         | 1599.4 | 65.1        | 4333   | US-09-936-572-13 | Sequence 13, Appl |
| 13         | 1599.4 | 65.1        | 4642   | US-09-936-572-12 | Sequence 12, Appl |
| 14         | 1599.4 | 65.1        | 9772   | US-09-552-950-5  | Sequence 5, Appl  |
| 15         | 1539.2 | 62.6        | 8366   | US-09-872-733A-6 | Sequence 6, Appl  |
| 16         | 1503.8 | 61.2        | 4338   | US-09-872-733A-1 | Sequence 1, Appl  |
| 17         | 1282.8 | 52.2        | 2577   | US-09-952-060-1  | Sequence 1, Appl  |
| 18         | 1282.8 | 52.2        | 2650   | US-09-952-060-5  | Sequence 5, Appl  |
| 19         | 1280.2 | 52.1        | 4053   | US-09-952-060-34 | Sequence 34, Appl |
| 20         | 1278   | 52.0        | 2577   | US-09-952-060-3  | Sequence 3, Appl  |
| 21         | 1278   | 52.0        | 2650   | US-09-952-060-7  | Sequence 7, Appl  |
| 22         | 1278   | 52.0        | 38519  | US-09-952-060-28 | Sequence 28, Appl |
| 23         | 1178.4 | 48.0        | 9010   | US-09-184-418C-8 | Sequence 8, Appl  |
| 24         | 1178.4 | 48.0        | 9010   | US-10-290-579A-8 | Sequence 8, Appl  |

|    |        |      |      |                   |                   |
|----|--------|------|------|-------------------|-------------------|
| 25 | 1150.6 | 46.8 | 9913 | US-09-827-688-11  | Sequence 11, Appl |
| 26 | 1147.4 | 46.7 | 8972 | US-09-184-418C-9  | Sequence 9, Appl  |
| 27 | 1147.4 | 46.7 | 8972 | US-10-290-579A-9  | Sequence 9, Appl  |
| 28 | 1140.2 | 46.4 | 8959 | US-09-184-418C-11 | Sequence 11, Appl |
| 29 | 1140.2 | 46.4 | 8959 | US-10-290-579A-11 | Sequence 11, Appl |
| 30 | 1137   | 46.3 | 2467 | US-09-872-733A-3  | Sequence 3, Appl  |
| 31 | 1116.8 | 45.5 | 8992 | US-09-184-418C-4  | Sequence 4, Appl  |
| 32 | 1116.8 | 45.5 | 8992 | US-10-290-579A-4  | Sequence 4, Appl  |
| 33 | 1081.6 | 44.0 | 2601 | US-09-117-217-7   | Sequence 7, Appl  |
| 34 | 1081.6 | 44.0 | 2601 | US-09-117-217-9   | Sequence 9, Appl  |
| 35 | 1081.6 | 44.0 | 2601 | US-09-117-217-11  | Sequence 11, Appl |
| 36 | 1081.6 | 44.0 | 2601 | US-09-117-217-13  | Sequence 13, Appl |
| 37 | 1081.6 | 44.0 | 2601 | US-09-735-487-7   | Sequence 7, Appl  |
| 38 | 1081.6 | 44.0 | 2601 | US-09-735-487-9   | Sequence 9, Appl  |
| 39 | 1081.6 | 44.0 | 2601 | US-09-735-487-11  | Sequence 11, Appl |
| 40 | 1081.6 | 44.0 | 2601 | US-09-735-487-13  | Sequence 13, Appl |
| 41 | 1081.6 | 44.0 | 4307 | US-09-552-950-1   | Sequence 1, Appl  |
| 42 | 1081.6 | 44.0 | 4307 | US-09-936-572-1   | Sequence 1, Appl  |
| 43 | 1081.6 | 44.0 | 9719 | US-09-700-304-1   | Sequence 1, Appl  |
| 44 | 1080   | 44.0 | 9050 | US-09-184-418C-7  | Sequence 7, Appl  |
| 45 | 1080   | 44.0 | 9050 | US-10-290-579A-7  | Sequence 7, Appl  |

## ALIGNMENTS

RESULT 1  
US-09-475-515-83  
; Sequence 83, Application US/09475515A  
; Patent No. 6602705  
; GENERAL INFORMATION:  
; APPLICANT: BARNETT, Susan  
; APPLICANT: ZUR MEGED, Jan  
; APPLICANT: SRIVASTAVA, Indresh  
; APPLICANT: LIAN, Ying  
; APPLICANT: HARTOG, Karin  
; APPLICANT: LIU, Hong  
; APPLICANT: GREER, Catherine  
; APPLICANT: SELBY, Mark  
; APPLICANT: WALKER, Christopher  
; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION  
; TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES  
; FILE REFERENCE: 1621.002  
; CURRENT APPLICATION NUMBER: US/09/475,515A  
; NUMBER OF SEQ ID NOS: 90  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 83  
; LENGTH: 2300  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURES:  
; OTHER INFORMATION: Description of Artificial Sequence:  
; OTHER INFORMATION: RS(-).protmod.RTopt.YMM  
; US-09-475-515-83

Query Match 83.0%; Score 2040; DB 3; Length 2300;  
Best Local Similarity 93.6%; Pred. No. 0;  
Matches 2153; Conservative 0; Mismatches 135; Indels 12; Gaps 2;

|    |     |                                                              |     |
|----|-----|--------------------------------------------------------------|-----|
| QY | 170 | CGCGCAGAGAGGCGCAATGAAAGCTGCACCGAGCGCAACTCTTCGCGG             | 229 |
| DB | 1   | CGCGCAGAGAGGCGCAATGAAAGCTGCACCGAGCGCAACTCTTCGCGG             | 60  |
| QY | 230 | AGGACCTGGCTTCCCGCAGGCGCGAGTTCCCGCAGAGCAAGCGCGCA              | 289 |
| DB | 61  | AGGACCTGGCTTCCCGCAGGCGCGAGTTCCCGCAGAGCAAGCGCGCA              | 120 |
| QY | 290 | ACAGCCCGCAGCGCGAGCTGCAGTGCAGCGCGG-----ACAACCCCGCAGCGG        | 343 |
| DB | 121 | ACAGCCCGCAGCGCGAGCTGCAGTGCAGTGCAGCGCGGAGAGCAAGCTGCAGCGG      | 180 |
| QY | 344 | CCGCGCGCAGCGCGCGAGCGCGAGCGCGCG-----AACTTCCCGCAGTACCTGTGCGAGC | 397 |

Db 181 CCGGCGCCGACCGGCGACGGGACCGTGAGCTTCAACTTCCCGGAGATCAACCTGTGACAC 240  
 QY 398 GCGCCCTGGTGAACATCAAGTGGGGGCGACAGTCAAGAGAGCGCTGTGACACCGGG 457  
 Db 241 GCGCCCTGGTGAACATCAAGTGGGGGCGACAGTCAAGAGAGCGCTGTGACACCGGG 300  
 QY 458 CCGACGACACCGTGTGAGAGAGATGAGCTGCGCGGCAAGTGAAGCCCAAGATGATG 517  
 Db 301 CCGACGACACCGTGTGAGAGAGATGAGCTGCGCGGCAAGTGAAGCCCAAGATGATG 360  
 QY 518 GCGGACATGCGGCGCTTCAATCAAGTGGCGCAAGTGAAGATCTGATCGAGATCTGG 577  
 Db 361 GCGGACATGCGGCGCTTCAATCAAGTGGCGCAAGTGAAGATCTGATCGAGATCTGG 420  
 QY 578 GCAAGAGGCGATCGGACCTGTGTGATCGGCCCCCAACCCCGTGAACATCATGCGCGCA 637  
 Db 421 GCGACAAAGGCGATCGGACCTGTGTGATCGGCCCCCAACCCCGTGAACATCATGCGCGCA 480  
 QY 638 ACATGCTGACCCGAGCTGGGCTGACCCCTGAATTCCCATCAGCCCATCGAGACCGTGC 697  
 Db 481 ACCTGCTGACCCGAGCTGGGCTGACCCCTGAATTCCCATCAGCCCATCGAGACCGTGC 540  
 QY 698 CCGTGAAGCTGAAGCCCGGATGAGCGGCCCAAGGTGAAGCAGTGGCCCTGACCGAG 757  
 Db 541 CCGTGAAGCTGAAGCCCGGATGAGCGGCCCAAGGTGAAGCAGTGGCCCTGACCGAG 600  
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 Db 601 AGAAGATCAAGGCGCTGAGTGAAGTCTGACCGAGATGAGAGAGAGGCGACATCA 660  
 QY 818 AGATGCGGCGCGGAAACCCCTTACACACACCCCGTGTTCGCTACATCAAGAGAGAGACGA 877  
 Db 661 AGATGCGGCGCGGAAACCCCTTACACACACCCCGTGTTCGCTACATCAAGAGAGAGACGA 720  
 QY 878 CCAAGTGGCGGAAAGCTGTGAGCTTCCGCAAGCTGAACAAGCGCACCCAGACTTCTGG 937  
 Db 721 CCAAGTGGCGGAAAGCTGTGAGCTTCCGCAAGCTGAACAAGCGCACCCAGACTTCTGG 780  
 QY 938 AGGTGACATGCGGACATCCCCACCCCGCGGCTGAGAGAGAGAGAGAGAGTGAACGTC 997  
 Db 781 AGGTGACATGCGGACATCCCCACCCCGCGGCTGAGAGAGAGAGAGAGTGAACGTC 840  
 QY 998 TGAACATGCGGCGGACCTACTTCAAGCGTGGCCCTGACGAGACTTCCGCAATGACCG 1057  
 Db 841 TGAACATGCGGCGGACCTACTTCAAGCGTGGCCCTGACGAGACTTCCGCAATGACCG 900  
 QY 1058 CTTTCAACATCCCGAGATCAACAGAGACCCCGGCAATCCGCTACCAAGTCAACGTGC 1117  
 Db 901 CTTTCAACATCCCGAGATCAACAGAGACCCCGGCAATCCGCTACCAAGTCAACGTGC 960  
 QY 1118 TGGCCCAAGGCTGAGAGAGGAGCGCCCAAGCATTTTCCAGAGACATGACCAAAATCTGG 1177  
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 Db 1021 AGGCTTTCGCGCGCGCAACCCCGAGATGCTGATCTTACAGGCGCCCTGTAGTGGGCA 1080  
 QY 1238 GCGACCTGAGATCGGCGACGACCGCGCAAGTCAAGAGAGCTGCGCAACCTGTGC 1297  
 Db 1081 GCGACCTGAGATCGGCGACGACCGCGCAAGTCAAGAGAGCTGCGCAACCTGTGC 1140  
 QY 1298 GCTGGGGCTTCAACACCCCGCAAGAGACCAAGAGAGAGCGCCCTTCTGTCCATCG 1357  
 Db 1141 GCTGGGGCTTCAACACCCCGCAAGAGACCAAGAGAGAGCGCCCTTCTGTCCATCG 1200  
 QY 1358 AGCTGACCCCGCAAGTGAACGCTGACGCGCAATCGAGCTGCGCGAGAGAGAGAGCTGCA 1417  
 Db 1201 AGCTGACCCCGCAAGTGAACGCTGACGCGCAATCGAGCTGCGCGAGAGAGAGAGCTGCA 1260  
 QY 1418 CCGTGAACGACATCAAGAGAGCTGTGGCAAGCTGAACCTGGCAGCGAGATCTACCCCG 1477

Db 1261 CCGTGAACGACATCCAGAAAGCTGTGGGCAAGCTGAATCTGGGCGACGACATCTACCGG 1320  
 QY 1478 GCATCAAGGTGGCGCAGCTGTGCAAGCTGTGCGCGCGCAAGGCGCTGACCGACATCG 1537  
 Db 1321 GCATCAAGGTGAAGCAGCTGTGCAAGCTGTGCGCGCGCAAGGCGCTGACCGAGTGA 1380  
 QY 1538 TGGCCCTGACCGAGAGAGCGCGAGCTGAGCTGGCCGAGAACCGCGAGATCTGTGCGGAG 1597  
 Db 1381 TGGCCCTGACCGAGAGAGCGCGAGCTGAGCTGGCCGAGAACCGCGAGATCTGTGAGAGAG 1440  
 QY 1598 CCGTGAACGCGCTGTACTACAGACCCCGAGAAAGAACCTGTGGCGCGAGATCTGAAGAGAG 1657  
 Db 1441 CCGTGAACGCGCTGTACTACAGACCCCGAGAAAGAACCTGTGGCGCGAGATCTGAAGAGAG 1500  
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 Db 1501 GCGACGACCAAGTGAACCTACAGATCTACAGAGAGCGCTTCAAGAACTGAAGACCGGCA 1560  
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 Db 1561 AGTACCGCGCAGATGCGCGCGCGCCACCAACGACGCTGAAGCAGCTGACCGAGCGTGC 1620  
 QY 1778 AGAAGATCGCATGAGAGACATCTGTGATCTTGGGGCAAGACCCCGCAAGTTCCGCTGCCCA 1837  
 Db 1621 AGAAGATGAGCACCGAGACATCTGTGATCTTGGGGCAAGATCCCGCAAGTTCAAGCTGCCCA 1680  
 QY 1838 TCCAGAGAGAGACCTTGGGAGACCTGTGTGACCGACTACCTGAGCGCACCTGATCCCG 1897  
 Db 1681 TCCAGAGAGAGACCTTGGGAGAGCTGTGTGATCTTGGGAGAGACCTGATCCCG 1740  
 QY 1898 AGTGGAGTTCTGTGAACACCCCGCTGTGTGAAGCTGTGTGACAGCTGAGAGAGAGC 1957  
 Db 1741 AGTGGAGTTCTGTGAACACCCCGCTGTGTGAAGCTGTGTGACAGCTGAGAGAGAGC 1800  
 QY 1958 CCATCATCGCGCGCGAGACCTTCTAAGTGAAGCGCGCGCGCAACCGCGAGACCAAGATCG 2017  
 Db 1801 CCATCATCGCGCGCGAGACCTTCTAAGTGAAGCGCGCGCGCAACCGCGAGACCAAGATCG 1860  
 QY 2018 GCAAGGCGCGGCTACGTGACCGACCGGGGCGCGGCAAGAGATCTGTGACCTGACCGAGACCA 2077  
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 QY 2078 CCAACCAAGAGACCGAGCTGACAGGCGATCAAGCTGGCCCTGACAGACAGCGGCGACGAG 2137  
 Db 1921 CCAACCAAGAGACCGAGCTGACAGGCGATCAAGCTGGCCCTGACAGACAGCGGCGACGAG 1980  
 QY 2138 TGAACATCTGTGACCGACAGCGAGTACGCTTGGGCAATCCAGGCGCCGAGCAAGA 2197  
 Db 1981 TGAACATCTGTGACCGACAGCGAGTACGCTTGGGCAATCCAGGCGCCGAGCAAGA 2040  
 QY 2198 GCGAGAGCGAGCTGTGAACAGATCATGAGAGCGCTGATCAAGAGAGAGAGTGTACC 2257  
 Db 2041 GCGAGAGCGAGCTGTGTGAGCGAGATCATGAGAGCGCTGATCAAGAGAGAGAGTGTACC 2100  
 QY 2258 TGAAGTGGGTGGCCCGCCCAAGAGGATCGCGGCAACGACAGATGACCAAGCTGTGA 2317  
 Db 2101 TGAAGTGGGTGGCCCGCCCAAGAGGATCGCGGCAACGACAGATGACCAAGCTGTGA 2160  
 QY 2318 GCAAGGCGATCGGCAAGTGTGTCTTGTGAAGCGCATTCATGAGCGGCAATCTGTATCTACC 2377  
 Db 2161 GCGCCCGGCAATCGGCAAGTGTGTCTTGTGAAGCGCATTCATGAGCGGCAATCTGTATCTACC 2220  
 QY 2378 AGTACATGAGACGACCTGTACGTGGGAGCGCGGCGCTGAGATCGATTAAAGCTTCCCG 2437  
 Db 2221 AGTACATGAGACGACCTGTACGTGGGAGCGCGGCGCTGAGATCGATTAAAGCTTCCCG 2280  
 QY 2438 GGGCTAGCACCGGTGAATTC 2457  
 Db 2281 GGGCTAGCACCGGTGAATTC 2300

RESULT 2  
 US-09-475-515-82

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; Sequence 82, Application US/09475515A
; Patent No. 6602705
; GENERAL INFORMATION:
; APPLICANT: BARNETT, Susan
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: SRIVASTAVA, Indresh
; APPLICANT: LIAN, Ying
; APPLICANT: HARTOG, Karin
; APPLICANT: LIU, Hong
; APPLICANT: GREER, Catherine
; APPLICANT: SIEBY, Mark
; APPLICANT: WALKER, Christopher
; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION
; FILE REFERENCE: 1621.002
; CURRENT APPLICATION NUMBER: US/09/475,515A
; NUMBER OF SEQ ID NOS: 90
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 82
; LENGTH: 2306
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURES:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: FS(-).protmod.RTopt.YM
US-09-475-515-82

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Query Match 82.2%; Score 2019.2; DB 3; Length 2306;
Best Local Similarity 93.2%; Pred. No. 0; Mismatches 138; Indels 18; Gaps 3;
Matches 2150; Conservative 0;

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Qy 230 AGAGCTGGCTTCCCGAGGCGCAAGCGCGGAGTTCCCGAGAGACAGACCGCGCA 289
Db 61 AGAGCTGGCTTCTGCAAGGCGCAAGCGCGGAGTTCAAGAGAGACCGCGCA 120
Qy 290 ACAGCCCCACAGCGCGGAGGAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 343
Db 121 ACAGCCCCACCGCGCGGAGGAGTGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 180
Qy 344 CCGGCGCGGAGCGCGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCG 397
Db 181 CCGGCGCGGAGCGCGGAGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCG 240
Qy 398 GCGGCTGGTGAAGATCAAGGTGGCGGCGGAGATCAAGAGAGCGCGCTGTGAGCAC 457
Db 241 GCGGCTGGTGAAGATCAAGGTGGCGGCGGAGATCAAGAGAGCGCGCTGTGAGCAC 300
Qy 458 CCGAGAGACCGTGTGAGAGAGATGAGCTCCCGGGAAGTGAAGCGGCAAGATGATCG 517
Db 301 CCGAGAGACCGTGTGAGAGAGATGAGCTCCCGGGAAGTGAAGCGGCAAGATGATCG 360
Qy 518 GCGGATCGGCGGCTTCAAGAGTGGCGGAGTGAAGACCAAGATCTGTGAGATCTGCG 577
Db 361 GCGGATCGGCGGCTTCAAGAGTGGCGGAGTGAAGACCAAGATCTGTGAGATCTGCG 420
Qy 578 GCAAGAGGCGCATGGGCAACGCTGTGATCGGCGGCGGCGGCGGCGGCGGCGGCGG 637
Db 421 GCAAGAGGCGCATGGGCAACGCTGTGATCGGCGGCGGCGGCGGCGGCGGCGGCGG 480
Qy 638 ACATGCTGAACCAAGTGGGCTGAGACCTTCCCGATGAGCGGCGGCGGCGGCGGCGG 697
Db 481 ACATGCTGAACCAAGTGGGCTGAGACCTTCCCGATGAGCGGCGGCGGCGGCGGCGG 540
Qy 698 CCGTGAAGCTGAAGCGCGGAGTGAAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 757
Db 541 CCGTGAAGCTGAAGCGCGGAGTGAAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 600
Qy 758 AGAAGATCAAGGCGCTGACCGGCAATCTGCGAGAGATGAGAGAGGCGCAAGATCACCA 817

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Db 661 AGATCGGCGCGGAGAAACCTTCAACACCCCGGTGTTCCCATCAAGAAAGACAGCA 720
Qy 878 CCAAGTGGGCGAAGCTGTGAACTTCCGAGGTGAACAAGCGCACCCAGACCTTCTGCG 937
Db 721 CCAAGTGGGCGAAGCTGTGAACTTCCGAGGTGAACAAGCGCACCCAGACCTTCTGCG 780
Qy 938 AGGTGAGCTGGGATCTCCCAACCCCGCGGCTGAGAGAGAAAGAGCGTGAACGCTGC 997
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Db 901 CTTTCAACATCCCGACATCAACAAGAGACCCCGGATCCGCTACAGTACACGTCG 960
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Db 961 TGCCCAAGGCTGAGAGGCGAGCGGAGCTTTCAGAGACAGTACCAAGATCTGCG 1020
Qy 1178 AGCTTTCGCGGCGCGGAGACCCCGAGATCTGATCTTCAAGGCGGCGGCTTGAAGTGGCA 1237
Db 1021 AGCTTTCGCGGAGAGAACCCCGACATCTGTATCTTACAGGCGGCGGCTTGAAGTGGCA 1080
Qy 1238 GCGACCTGAGATCGGCGACACCGGCGGAGATCGAGAGCTGCGGAGACCTGCTGC 1297
Db 1081 GCGACCTGAGATCGGCGACACCGGCGGAGATCGAGAGCTGCGGAGACCTGCTGC 1140
Qy 1298 GCTGGGCTTCAACACCCCGGAGAGAGACCAAGAGAGCGGCGGCGGCGGCGGCGG 1355
Db 1141 GCTGGGCTTCAACACCCCGGAGAGAGACCAAGAGAGCGGCGGCGGCGGCGGCGG 1200
Qy 1356 GCGAGTGCACCCCGGAGAGTGAAGCTGTGAGAGCGGAGTGCAGTGCAGAGAGAG 1411
Db 1201 GCGAGTGCAGCCCGGAGAGTGAAGCTGTGAGAGCGGAGTGCAGTGCAGAGAGAG 1260
Qy 1412 GCTGAGACCTGAGAGAGATCAAGAGCTGTGGGCGAGTGAAGTGGGCGGAGAGTCT 1471
Db 1261 GCTGAGACCTGAGAGAGATCAAGAGCTGTGGGCGAGTGAAGTGGGCGGAGAGTCT 1320
Qy 1472 ACCCGGAGATCAAGAGTGCAGGCTGTGAGAGCTGTGCGGCGGCGGAGGCGGCGG 1531
Db 1321 ACCCGGAGATCAAGAGTGCAGGCTGTGAGAGCTGTGCGGCGGCGGAGGCGGCGG 1380
Qy 1532 ACATGTCGCGCTTGAACCGAGAGGCGGAGCTGTGAGAGCTGTGCGGAGAGCGGAGTCTGTC 1591
Db 1381 AGGTGATCCCGCTGACCGAGAGGCGGAGCTGTGAGAGCTGTGCGGAGAGCGGAGTCTGTC 1440
Qy 1592 GCGAGCGGCTGTGAGAGGCTGTGAGAGCTGTGAGAGCTGTGAGAGCTGTGAGAGCTGTGAG 1651
Db 1441 AGGAGCGGCTGTGAGAGGCTGTGAGAGCTGTGAGAGCTGTGAGAGCTGTGAGAGCTGTGAG 1500
Qy 1652 AGGAGCGGCTGTGAGAGGCTGTGAGAGCTGTGAGAGCTGTGAGAGCTGTGAGAGCTGTGAG 1711
Db 1501 AGGAGCGGCTGTGAGAGGCTGTGAGAGCTGTGAGAGCTGTGAGAGCTGTGAGAGCTGTGAG 1560
Qy 1712 CCGGCAAGTACCGCAAGATGCGCACCGGCGGAGAGAGAGAGAGAGAGAGAGAGAG 1771
Db 1561 CCGGCAAGTACCGGAGATGCGCACCGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAG 1620
Qy 1772 CCGTGAAGATCGCATGAGAGAGATCGGATCTGTGGGCGAGAGAGAGAGAGAGAGAG 1831
Db 1621 CCGTGAAGATCGCATGAGAGAGATCGGATCTGTGGGCGAGAGAGAGAGAGAGAGAG 1680
Qy 1832 TGCCATCAAGAGAGAGCTGTGAGAGCTGTGAGAGCTGTGAGAGCTGTGAGAGCTGTGAG 1891

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 Db 1741 TCCCGGAGTGGAGGTTGTGTAACACCCCTCCCTGTGTAAGCTGTGTACCAAGCTTGAGA 1800  
 QY 1952 AGGAGCCATCATCGAGCGCGCGAGACCTTCTACGTGACCGCGCGCAACCGCGAGACCA 2011  
 Db 1801 AGGAGCCATCATCGAGCGCGCGAGACCTTCTACGTGACCGCGCGCAACCGCGAGACCA 1860  
 QY 2012 AGATCGGCAAGCGCGCTACGTGACCGACCGCGCGCGCGCAAGATCTGTAGCTTGAACG 2071  
 Db 1861 AGCTGGGCAAGCGCGCTACGTGACCGACCGCGCGCGCGCAAGATCTGTAGCATCGCG 1920  
 QY 2072 AGACCAACCAACGAGAGACCGAGCTGAGGCGCATTCAGCTGAGCGCTGAGAGACAGCGGCA 2131  
 Db 1921 ACACCAACCAACGAGAGACCGAGCTGAGGCGCATTCAGCTGAGCGCTGAGAGACAGCGGCA 1980  
 QY 2132 GCGAGGTGAACATCTGTGACCGACAGCGACGACCTGAGCATCATTCAGGCGCGAGCGG 2191  
 Db 1981 TGGAGGTGAACATCTGTGACCGACAGCGACGACCTGAGCATCATTCAGGCGCGAGCGG 2040  
 QY 2192 ACAAGAGCGAGAGCGAGCTGTGTGAACCAATCATTCAGACGCTGATCAAGAGAGAGAG 2251  
 Db 2041 ACAAGAGCGAGAGCGAGCTGTGTGAACCAATCATTCAGACGCTGATCAAGAGAGAGAG 2100  
 QY 2252 TGTACTGAGCTGTGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2311  
 Db 2101 TGTACTGAGCTGTGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2160  
 QY 2312 TGTGTAGCAAGGCGCATCCGCAAGGTGTGTCTCTGACCGGCGCATTCAGCGCGCATCGTA 2371  
 Db 2161 TGTGTAGCGCGCGCGCATCCGCAAGGTGTGTCTCTGACCGGCGCATTCAGCGCGCATCGTA 2220  
 QY 2372 TCTACAGTACATGACGACCTGTACGTGTGAGCGAGCGCGCGCGCGCGCGCGCGCGCGCG 2431  
 Db 2221 TCTACAGTACATGACGACCTGTACGTGTGAGCGAGCGCGCGCGCGCGCGCGCGCGCGCG 2280  
 QY 2432 TTCCCGGCGGTACGACCGGTGAATTC 2457  
 Db 2281 TTCCCGGCGGTACGACCGGTGAATTC 2306

## RESULT 3

US-09-475-515-84  
 / Sequence 84, Application US/09475515A  
 / Patent No. 6602705  
 / GENERAL INFORMATION:  
 / APPLICANT: BARNETT, Susan  
 / APPLICANT: ZUR MEGEDE, Jan  
 / APPLICANT: SRIVASTAVA, Indresh  
 / APPLICANT: LIAN, Ying  
 / APPLICANT: HARTOG, Karin  
 / APPLICANT: LIU, Hong  
 / APPLICANT: GREER, Catherine  
 / APPLICANT: SERBY, Mark  
 / APPLICANT: WALKER, Christopher  
 / TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION  
 / FILE REFERENCE: 1621.002  
 / CURRENT APPLICATION NUMBER: US/09/475,515A  
 / NUMBER OF SEQ ID NOS: 90  
 / SOFTWARE: Patent In Ver. 2.0  
 / SEQ ID NO 84  
 / LENGTH: 2312  
 / TYPE: DNA  
 / ORGANISM: Artificial Sequence  
 / FEATURE:  
 / OTHER INFORMATION: Description of Artificial Sequence:  
 / OTHER INFORMATION: FS(-).Protmod.RTopt(+)  
 US-09-475-515-84

Query Match 81.3%; Score 1998.4; DB 3; Length 2312;  
 Best Local Similarity 92.9%; Pred. No. 0;  
 Matches 2147; Conservative 0; Mismatches 141; Indels 24; Gaps 4;

QY 170 GCGGCAAGAGGCGCCACGATGAAGAGACTGTGACCGAGCGCGCAACTTCTTCCGG 229  
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 QY 230 AGGAGCTGGCTTTCCTCCGAGGCAAGGCGCGAGATTTCCTCCAGCAGAGAACCGCGCA 289  
 Db 61 AGGAGCTGGCTTTCCTGAGGCGCAAGGCGCGAGATTTCAGAGCAGAGAACCGCGCA 120  
 QY 290 ACAGCCCAACAGCGCGAGCTGACAGTGTGCGCGCG-----ACAACCCCGCAGCGAG 343  
 Db 121 ACAGCCCAACCGCGCGAGCTGACAGTGTGCGCGCGAGAGAACACAGCTGTGAGAG 180  
 QY 344 CGGCGCGAGAGCGCGAGCGCGCG-----AATTCCTCCAGATATCCTGTGTGACG 397  
 Db 181 CGGCGCGAGAGCGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 240  
 QY 398 GCGCGCGAGAGCATCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 457  
 Db 241 GCGCGCGAGAGCATCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 300  
 QY 458 CGGAGCAACCGTGTGAGAGAGATGAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 517  
 Db 301 CGGAGCAACCGTGTGAGAGAGATGAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 360  
 QY 518 GCGGCAATCGCGCGCTTCAATGAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 577  
 Db 361 GCGGCAATCGCGCGCGCTTCAATGAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCG 420  
 QY 578 GCAAGAGGCGCATTCGCGCACTGTGTGATGCGCGCGCGCGCGCGCGCGCGCGCGCG 637  
 Db 421 GCGCAAGGCGCATTCGCGCACTGTGTGATGCGCGCGCGCGCGCGCGCGCGCGCGCG 480  
 QY 638 ACATGTGACCGAGCTGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 697  
 Db 481 ACCTGTGACCGAGATGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 540  
 QY 698 CGGTGAAGCTGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 757  
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 QY 1118 TGCCCGAGAGGCTGGAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1177  
 Db 961 TGCCCGAGAGGCTGGAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1020  
 QY 1178 AGCCCTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1231

Db 1021 AGCCCTCCGCAAGCAAGAACCCCGACATCGTGTCTCAACGATCATGAGAACCTTGAC 1080  
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 Db 1081 TGGGACGCGACCTGAGATGAGGCGACAGCCGCGCAAGATGAGAGCTGCGCAAGACC 1140  
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 Qy 1466 AGATCTACCCCGCATCAAGTGTGCGCCAGCTGTGCAAGCTGTGCGCGCGCCAGAGCCC 1525  
 Db 1321 AGATCTACCCCGCATCAAGTGTGCGCCAGCTGTGCAAGCTGTGCGCGCGCCAGAGCCC 1380  
 Qy 1526 TGAACCGACATGTGCTCCCTGACCGAGAGGCGCGAGCTGAGCTGCGCGAGAACCGCGAGA 1585  
 Db 1381 TGAACCGAGTGTATCCCTGACCGAGAGGCGCGAGCTGAGCTGCGCGAGAACCGCGAGA 1440  
 Qy 1586 TCTGTGCGCGAGCCCGTGCACAGGCGGTGATCAACGACCCGACGAAGGACCTGTGGCGGAGA 1645  
 Db 1441 TCTGTGAAGAGGCCGTGCACAGGCGGTGATCAACGACCCGACGAAGGACCTGTGGCGGAGA 1500  
 Qy 1646 TCCGAGAGCAGGCGCGACGACGATGAGACTTACGATCTACGAGAGCCCTTCAAGAACCC 1705  
 Db 1501 TCCGAGAGCAGGCGCGACGACGATGAGACTTACGATCTACGAGAGCCCTTCAAGAACCC 1560  
 Qy 1706 TGAAGACCGGCAATGACGCGCAAGTGTGCGCACCGCGCACACCAACGACGTGAAGCACTGA 1765  
 Db 1561 TGAAGACCGGCAATGACGCGCGCATGTGCGCGCGCGCACACCAACGACGTGAAGCACTGA 1620  
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 Qy 1826 TCCGCTGCGCCATCAAGAAAGGAGACTGAGAGACTTGTGAGAGCGACTGACGAGCGCA 1885  
 Db 1681 TCAAGCTGCCCATCAAGAAAGGAGACTGAGAGACTTGTGAGAGCGACTGACGAGCGCA 1740  
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 Qy 2006 AGAACAAGATGAGCAAGGCGCGCTTACGTAACGACCGGCGCGCGGAGAAATGTGTAGACC 2065  
 Db 1861 AGAACAAGATGAGCAAGGCGCGCTTACGTAACGACCGGCGCGCGGAGAAATGTGTAGACC 1920  
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 Db 1921 TGAACCGAAGCAACCAACGAAGAACGAGCTGACAGGCCATCAAGCTGAGCCCTTGCAGAGCA 1980  
 Qy 2126 GCGGCGAGGAGGTGAACATGTGACCGACAGCAGCTGAGCCCTTGGGCAATCTCAAGGCGCC 2185  
 Db 1981 GCGGCGAGGAGGTGAACATGTGACCGACAGCAGCTGAGCCCTTGGGCAATCTCAAGGCGCC 2040  
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 Db 2041 AGCCCGAACAAGGAGGAGGAGGAGGAGCTGTGTGAGCAGATCATGAGAGGCTGTGATCAAGAGG 2100  
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 Db 2161 ACAAGCTGTGTGAGCGCGCGCAATCCGACAGTGTGTTCTTGAACCGGCAATGAGGGGCA 2220  
 Qy 2366 TCGTGTATCTACAGATCATGAGAGCACTGTGAGTGTGGGAGCGGCGCGCTGAGATGAT 2425  
 Db 2221 TCGTGTATCTACAGATCATGAGAGCACTGTGAGTGTGGGAGCGGCGCGCTGAGATGAT 2280  
 Qy 2426 AAAAGCTTCCCGGGGCTAGACCGGTGAATTC 2457  
 Db 2281 AAAAGCTTCCCGGGGCTAGACCGGTGAATTC 2312

RESULT 4  
 US-09-475-515-6  
 ; Sequence 6, Application US/09475515A  
 ; Patent No. 6602705  
 ; GENERAL INFORMATION:  
 ; APPLICANT: BARNETT, Susan  
 ; APPLICANT: ZUR MEGEDE, Jan  
 ; APPLICANT: SRIVASTAVA, Indresh  
 ; APPLICANT: LIAN, Ying  
 ; APPLICANT: HARTOG, Karin  
 ; APPLICANT: LIU, Hong  
 ; APPLICANT: GREER, Catherine  
 ; APPLICANT: SELBY, Mark  
 ; APPLICANT: WALKER, Christopher  
 ; TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION  
 ; TITLE OF INVENTION: OF VIRUS-LIKE PARTICLES  
 ; FILE REFERENCE: 1621.002  
 ; CURRENT APPLICATION NUMBER: US/09/475,515A  
 ; CURRENT FILING DATE: 1999-12-30  
 ; NUMBER OF SEQ ID NOS: 90  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 6  
 ; LENGTH: 4319  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: synthetic  
 ; OTHER INFORMATION: HIV-Gag-polymerase  
 ; US-09-475-515-6

Query Match 78.0%; Score 1915.8; DB 3; Length 4319;  
 Best Local Similarity 89.4%; Pred. No. 4.2e-306;  
 Matches 2140; Conservative 0; Mismatches 227; Indels 28; Gaps 6;

Qy 14 TGGCGAGGCGCATGAGCCAGGCGACAGC---GCCAATCTCTGATGACGCGGCAACT 70  
 Db 1100 TGGCGAGGCGATGAGCCAGGTGACGAACCGGCGGACCATCATGATGATGACGCGGCAACT 1159  
 Qy 71 TCAAGGCGCGCGAGGATCATCAAGTGTTCATCTGCGGAGAGAGGCGCGCAATCGGCC 130  
 Db 1160 TCCGCAACGAGCGGAGAACGTCAGATGCTTCACTGCGGAGAGAGGCGCGCAACCGCCA 1219  
 Qy 131 GCAATCGCGCGCGCGCGCGCGCAAGAAAGGCTGTGAGAGTGTGCGGAGAGAGGCGCGCA 190  
 Db 1220 GAACTGCGCGCGCGCGCGCGCGCAAGAAAGGCTGTGAGAGTGTGCGGAGAGAGGCGCGCA 1279  
 Qy 191 TGAAGACTGACCCGAGCGCGCAACTTCTTCCGAGAGACTGTGCGCTTCCCGCAAG 250  
 Db 1280 TGAAGACTGACCCGAGCGCGCAACTTCTTCCGAGAGACTGTGCGCTTCCCGCAAG 1338  
 Qy 251 GCAAGCGCGCGGAGTTCCTCAGAGGAGCAAGACCGCGCAACAGCCCAACGCGCGAGC 310  
 Db 1339 GGAAGGCGCGAGGATTTCTTCAAGAGAGCAAGAGCTCAAGAGCTCCCAACGAGAGAGC 1398  
 Qy 311 TGAAGTGTGCGCGCG-----ACAACCGCGCAAGAGGCGCGCGCGCGCGCGCGCA 364  
 Db 1399 TTCAAGTTTGGGAGAGAGAAACAACTCTCTCTGAGAGAGAGAGCGGATGAGACAGGAA 1458

365 -----CCTGAACTTCTCCAGATCACTCTGTGGAGCGCCCTGTGTGAGCATCAAG 418  
 1459 CTGTATCTTTAACTTCCCTCAGATCACTTTTGGACAGACCCCTGTGTCAAGTAAGGA 1518  
 419 TGGGCGGCGAGATCAAGAGAGGCTTGTGTGACACCGGCGCCGACACCTGTGTGGAAG 478  
 1519 TGGGCGGCGAGATCAAGAGAGGCTTGTGTGACACCGGCGCCGACACCTGTGTGGAAG 1578  
 479 AGATGAGCTGCGCGGCAAGTGAAGCCCAAGATGATTCGGCGGATCGGCGGCTTATCA 538  
 1579 AGATGAGCTGCGCGGCAAGTGAAGCCCAAGATGATTCGGCGGATCGGCGGCTTATCA 1638  
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 1639 AGGTGGCGAGTACGACAGATCTGTGATGATCTGTGCGCAAGAAAGCCATCGGACCG 1698  
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 1759 GCACTCTGAACTTCCCATCAAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1818  
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 899 ACTTCCGCGAGCTGAAACAAGCGACCCAGGACTTCTGTGGAGGTGACGTGGAGCTCC 958  
 1999 ACTTCCGCGAGCTGAAACAAGCGACCCAGGACTTCTGTGGAGGTGACGTGGAGCTCC 2058  
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 1199 CGAGATCTGATCTCA-----GAGCGCGCTGTACGTGGGCGAGGAGCTTGAAGTCA 1252  
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 1313 CCGCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1366  
 2419 CCGCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2478  
 1367 CGGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1426  
 2479 CGGACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2538  
 1427 ACATCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1486

2539 ACATCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2598  
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 2599 TGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2658  
 1547 CGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1606  
 2659 CGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2718  
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 2719 AGGTGTACTAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2778  
 1667 AGTGAAGCTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1726  
 2779 AGTGAAGCTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2838  
 1727 AGATGGCAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1786  
 2839 GATGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 2898  
 1787 CCAATGAGAGATCTGTGATCTGTGGGCGAAGACCCCGCAAGTTCCGCTGGCCATCCAG 1846  
 2899 GCAAGGAGAGATCTGTGATCTGTGGGCGAAGATCCCAAGTTCAAGCTGCCATCCAGAG 2958  
 1847 AGACCTGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1906  
 2959 AGACCTGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3018  
 1907 TGTGTAAACCCCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1966  
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 1967 GCGCGAGAGCTTCTTACGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2026  
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 3139 GCTAGGTGACCGAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 3198  
 2087 AGACGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2146  
 3199 AGACGAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3258  
 2147 TGAACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2206  
 3259 TGAACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3318  
 2207 AGGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2266  
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 3379 TGGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 3438  
 2327 TGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2381  
 3439 TGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3493

RESULT 5  
 US-09-393-795-12  
 ; Sequence 12, Application US/09393795  
 ; Patent No. 6958226  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Gray, John T.  
 ; APPLICANT: Mulligan, Richard C.  
 ; TITLE OF INVENTION: Packaging Cell Lines  
 ; FILE REFERENCE: CMC693p2A

CURRENT APPLICATION NUMBER: US/09/393,795  
CURRENT FILING DATE: 1999-09-10  
PRIOR APPLICATION NUMBER: US 60/100,063  
PRIOR FILING DATE: 1998-09-12  
PRIOR APPLICATION NUMBER: US 60/100,022  
PRIOR FILING DATE: 1998-09-11  
NUMBER OF SEQ ID NOS: 12  
SOFTWARE: FastSeq for Windows Version 3.0  
SEQ ID NO 12  
LENGTH: 8908  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURES:  
OTHER INFORMATION: Packaging construct PHdHgm2 comprising a codon  
OTHER INFORMATION: Optimized form of HIV gag pol region  
US-09-393-795-12

Query Match 76.6%; Score 1882.2; DB 3; Length 8908;  
Best Local Similarity 88.5%; Pred. No. 1.5e-300;  
Matches 2119; Conservative 0; Mismatches 248; Indels 28; Gaps 6;

14 TGGCCGAGCCATGAGCCGACCA---GCGCCAACTCTGTATGACGAGCAACT 70  
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71 TCAAGGCGCCGACGATCATCAAGTCTTCACTGCGGCAAGAGGCGCATGCGCC 130  
2465 TCGCAACACGACGCAAGCGTGAAGTCTTCACTGCGGCAAGAGGCGCATGCGCC 2524  
131 GCAACTGCGGCGCCCGGCAAGAGGCGTGTGAAGTGTGCGCAAGAGGCGCGACGA 190  
2525 AGAATCGCGGCGCCCGGCAAGAGGCGTGTGAAGTGTGCGCAAGAGGCGCGACGA 2584  
191 TGAAGACTGCAACGAGCGCGCAACTCTTCCGCGAGAGACTGTGCGCTTCCCGCAGG 250  
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251 GCAAGCGCGCGAGTCTCCGCGAGCAAGCGCGCGCAAGCGCGCGAC 310  
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2764 CTGTATCTTGAATCTCTCTCAAGTCACTCTTGTGCGAGCGCGCGCGCGCGCGCAAG 2823  
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3124 TGAAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 3183

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4024 GCGTGTACTAGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 4083  
1667 AGTGAACCTTACAGATCTTCAAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1726  
4084 AGTGAACCTTACAGATCTTCAAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 4143  
1727 AGATGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1786  
4144 GCAAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 4203  
1787 CCATGAGAGCGATGTGATCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1846  
4204 CCACCGAGTCATGTGATCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 4263  
1847 AGACTGCGAGACCTGTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1906



|                                                                              |      |                                                                  |       |
|------------------------------------------------------------------------------|------|------------------------------------------------------------------|-------|
| Dd                                                                           | 4264 | AGACTTGGAGGCTCTGTGTGAACCGACTACTGGCAGGCCACTGTGATCCCGAGTGGAGT      | 43232 |
| Qy                                                                           | 1907 | TCGTGAACACCCCCCCCCCTGTGTGAAGCTGTGTGTACCACTGTGAGAGAGGCCATCATCG    | 19666 |
| Dd                                                                           | 4324 | TCGTGAACACCCCCCCCCCTGTGTGAAGCTGTGTGTACCACTGTGAGAGAGGCCATCATCG    | 43836 |
| Qy                                                                           | 1967 | GGCGGGAACCTTTCTACGTGTGAACGGCGCGCGCCCAACCGGAGACCAAGATTCGGCAAGCGCG | 20286 |
| Dd                                                                           | 4384 | GGCGGGAACCTTTCTACGTGTGAACGGCGCGCGCCCAACCGGAGACCAAGCTGTGTGAGCGCG  | 44436 |
| Qy                                                                           | 2027 | GCTACGTGACCGACCGGGGCGCGGAGAGATCTGTAGCGCTGACCGAGACCAACCAACGAGA    | 20866 |
| Dd                                                                           | 4444 | GCTACGTGACCGACCGGGGCGCGGAGAGATCTGTAGCGCTGACCGAGACCAACCAACGAGA    | 45036 |
| Qy                                                                           | 2087 | AGACCGAGCTGACGGCCATTCAGCTGGCCCTTGACGAGACAGCGGCGCGAGGTTGAACATCG   | 21486 |
| Dd                                                                           | 4504 | AGACCGAGCTGACGGCCATTCAGCTGGCCCTTGACGAGACAGCGGCGCGAGGTTGAACATCG   | 45636 |
| Qy                                                                           | 2147 | TGACCGGACAGCCAGTACGCGCTTGGGCAATCATCAGGCCCAAGCCGACCAAGACGAGAGCG   | 22086 |
| Dd                                                                           | 4564 | TGACCGGACCTCCACGATATGATTTGGGCAATCATCAGGCCCAAGCCGACCAAGCTCGAGTCCG | 46236 |
| Qy                                                                           | 2207 | AGCTGATGAAACCAAGATCATTCAGGACGCTGATCAAGAGAGAGAGGTGTACCTGAGCTGGG   | 22686 |
| Dd                                                                           | 4624 | AGCTGATGATCCAGATCATTCAGGACGCTGATCAAGAGAGAGAGGTGTACCTGAGCTGGG     | 46836 |
| Qy                                                                           | 2267 | TGCGCGCCCAAGGGGCAATTCGGCGGCAACGAGCAGATTCGACAGCTGTGTGAGCAAGGCA    | 23286 |
| Dd                                                                           | 4684 | TGCGCGCCCAAGGGGCAATTCGGCGGCAACGAGCAGATTCGACAGCTGTGTGAGCAAGGCA    | 47436 |
| Qy                                                                           | 2327 | TCCGGAAGTGTCTGTCTCTGACGGGCAATCGATGGGGGATGTGTATCTACAGTA           | 2381  |
| Dd                                                                           | 4744 | TCCGGAAGTGTCTGTCTCTGACGGGCAATCGATGGGGGATGTGTATCTACAGTA           | 4798  |
| RESULT 6                                                                     |      |                                                                  |       |
| US-09-475-515-81                                                             |      |                                                                  |       |
| / Sequence 81, Application US/09475515A                                      |      |                                                                  |       |
| / Patent No. 6602705                                                         |      |                                                                  |       |
| / GENERAL INFORMATION:                                                       |      |                                                                  |       |
| / APPLICANT: BARNETT, Susan                                                  |      |                                                                  |       |
| / APPLICANT: ZUR MEGEDE, Jan                                                 |      |                                                                  |       |
| / APPLICANT: SRIVASTAVA, Indresh                                             |      |                                                                  |       |
| / APPLICANT: LIAN, Ying                                                      |      |                                                                  |       |
| / APPLICANT: HARTOG, Karin                                                   |      |                                                                  |       |
| / APPLICANT: LIU, Hong                                                       |      |                                                                  |       |
| / APPLICANT: GREER, Catherine                                                |      |                                                                  |       |
| / APPLICANT: SELBY, Mark                                                     |      |                                                                  |       |
| / APPLICANT: WALKER, Christopher                                             |      |                                                                  |       |
| / TITLE OF INVENTION: IMPROVED EXPRESSION OF HIV POLYPEPTIDES AND PRODUCTION |      |                                                                  |       |
| / FILE OF INVENTION: OF VIRUS-LIKE PARTICLES                                 |      |                                                                  |       |
| / FILE REFERENCE: 1621.002                                                   |      |                                                                  |       |
| / CURRENT APPLICATION NUMBER: US/09/475,515A                                 |      |                                                                  |       |
| / CURRENT FILING DATE: 1999-12-30                                            |      |                                                                  |       |
| / NUMBER OF SEQ ID NOS: 90                                                   |      |                                                                  |       |
| / SOFTWARE: PatentIn Ver. 2.0                                                |      |                                                                  |       |
| / SEQ ID NO 81                                                               |      |                                                                  |       |
| / LENGTH: 2299                                                               |      |                                                                  |       |
| / TYPE: DNA                                                                  |      |                                                                  |       |
| / ORGANISM: Artificial Sequence                                              |      |                                                                  |       |
| / FEATURE:                                                                   |      |                                                                  |       |
| / OTHER INFORMATION: Description of Artificial Sequence:                     |      |                                                                  |       |
| / OTHER INFORMATION: FS(+). proinact.Rtopt.YMM                               |      |                                                                  |       |
| US-09-475-515-81                                                             |      |                                                                  |       |

| Query Match | Similarity | Score                                                      | 1872.8 | DB:3       | Length | 2299              |
|-------------|------------|------------------------------------------------------------|--------|------------|--------|-------------------|
| Beet        | Local      | 89.3%                                                      | Pred.  | 4.6e-299   |        |                   |
| Matches     | 2055       | Conservative                                               | 0      | Mismatches | 232    | Indels 13; Gaps 3 |
| Qy          | 170        | GGCGAAGAGGGCCACCGATGAAGAGCTGCACCGAGCGCCAGGCCAATTCTTCGCG    | 229    |            |        |                   |
| Db          | 1          | GGGGCGCGAAGAGCACCCAAATGAAGATTGCATCGAGAGCAGGCTAATTTTTT-AGCG | 59     |            |        |                   |

|    |      |                                                                  |      |
|----|------|------------------------------------------------------------------|------|
| QY | 230  | AGGACTTGAGCTTCCCGCAGGCGAAAGCCCGGAGGTTCCCGAGGAGCGAGAACCGCGCCA     | 289  |
| Db | 60   | AAGATCTGGCCTTCTCAAGGAGAAAGCGCAGGGAATTTTCTTCAGAGGACGACCGAGAGCA    | 119  |
| QY | 290  | ACAGCGCCACCAAGCCCGAGAGCTGAGAGGTGGCGGCG-----ACAAACCCCGCAGCGAG     | 343  |
| Db | 120  | ACAGCGCCACCAAGAAAGAGAGCTTCAGGTTTGGGAGGAGAAACACTCCCTTCAGAG        | 179  |
| QY | 344  | CCGCGCGCCGAGCGCCAGGCGCA-----CCCTGAACTTCCCGCAATCAACCTGTGGACG      | 397  |
| Db | 180  | CAGAGAGCGGATATAGCAAGGAACTGTATCTTTAACTTCCCTCAGATCACTCTTGGCGAAC    | 239  |
| QY | 398  | GCCCCCTGTGTAGCATCAAGGTGGCGGCGCCAGATCAAGAGAGGCGCTGTGTGACACCGCGC   | 457  |
| Db | 240  | GACCCCTGTCAATATAGATTCGGGGGGCAACTCAAGAAAGCGGTGTCTCATATCAAGAG      | 299  |
| QY | 458  | CCGAGACACCGTGTCTGAGAGAGATGAGCCTCGCCGCAAGTGGAAAGCCCAAGATGATCG     | 517  |
| Db | 300  | CAGATGATACAGTATTAGAAAGAAATGAAATTTGGCAGGAAATGGAACCAAAAATGATAG     | 359  |
| QY | 518  | GCGGATCGGCGGCGCTTCATCAAGGTGCGCCAGTACGACCAAGATCCTGTATCGAGATCTGCG  | 577  |
| Db | 360  | GCGGAGATCGGCGGCTTCATCAAGGTGAGGCGAGTACGACCAATACCTGTAGAAATCTGTG    | 419  |
| QY | 578  | GCAAGAAAGCCATCGGCAACCGTGCTGATCGGCGCCCAACCCCGGTGAATCATCTCGCGCGCA  | 637  |
| Db | 420  | GACATTAAGCTATATAGTACAGTATTAGTAGAGACCTACACCTGTCAACATTAATTGGAAAGA  | 479  |
| QY | 638  | ACATGTCTGATCCCACTGTGGCTTGACACCTTGAACTTCCCACTAGGCCCATCGAGACCGGCG  | 697  |
| Db | 480  | ATCTGTGTACCCCAATCGGCTTGACACTTGTGAACCTTCCCATCAAGCCTTATGAGACGGTGC  | 539  |
| QY | 698  | CCGTGAAGCTGAAGCCCGGCGATGAGACGCGCCCAAGGTGAACCAAGTGGCCCTCTGACCGAGG | 757  |
| Db | 540  | CCGTGAAGCTGAAGCCCGGCGATGAGACGCGCCCAAGTGAACCAATGGCATTGACCGAGAG    | 599  |
| QY | 758  | AGAAGATCAAGAGCCCTGACCGCCATCTTGCGAGAGATGAGAGAGAGAGGGCAAGATCACCA   | 817  |
| Db | 600  | AGAAGATCAAGAGCCCTGTGTGAGATCTTGCAACGAGATGAGAGAGAGAGGGCAAGATCACCA  | 659  |
| QY | 818  | AGATGTGGCCCGAGAGACCCCTTACAAACACCCCGGTGTGCGCATCAAGAAAGAAAGACAGCA  | 877  |
| Db | 660  | AGATGTGGCCCGAGAGACCCCTTACAAACACCCCGGTGTGCGCATCAAGAAAGAAAGACAGCA  | 719  |
| QY | 878  | CCAAGTGGCGGAAGGTGTGTGACCTTCGCGAGAGCTGAACAAAGCGCACCCAGGACTTCTGGG  | 937  |
| Db | 720  | CCAAGTGGCGGAAGGTGTGTGACCTTCGCGAGAGCTGAACAAAGCGCACCCAGGACTTCTGGG  | 779  |
| QY | 938  | AGGTGCAGCTGGGCAATCCGCCACCCCGCGCGCTGAAGAAAGAAAGAGCGGTGACCGTGC     | 997  |
| Db | 780  | AGGTGCAGCTGGGCAATCCGCCACCCCGCGCGCTGAAGAAAGAAAGAGCGGTGACCGTGC     | 839  |
| QY | 998  | TGGAGCTGGGCGAGCGCTTACTTCAGCGGTGCCCTTGAACGAGAGCTTCCGCAAGTACACCG   | 1057 |
| Db | 840  | TGGAGCTGGGCGAGCGCTTACTTCAGCGGTGCCCTTGAACGAGAGCTTCCGCAAGTACACCG   | 899  |
| QY | 1058 | CCTTCAACAATCCCGCAGATCAACAACGAGACCCCGCGGATCGGCTACCAAGTACAAAGTGC   | 1117 |
| Db | 900  | CCTTCAACAATCCCGCAGATCAACAACGAGACCCCGCGGATCGGCTACCAAGTACAAAGTGC   | 959  |
| QY | 1118 | TGCCCAAGGCTGGAAGGGCAGGCCAGACATCTTTCAGAGGACGATGACCAAGATCTCTGG     | 1177 |
| Db | 960  | TGCCCAAGGCTGGAAGGGCAGGCCCGGCACTTTCAGAGGACGATGACCAAGATCTCTGG      | 1019 |
| QY | 1178 | AGCCCTTCCGCGCCCGCAACCCCGAGATGTGATCTTACAGGCGCCCTCTGTATCGTGGCA     | 1237 |
| Db | 1020 | AGCCCTTCCGCAAGGAGAACCCCGACATCGTATCTTACAGGCGCCCTCTGTATCGTGGCA     | 1079 |
| QY | 1238 | GCGACTTGGAGATGGCGCAGACCGCGCGCAAGATCGAGAGACTGTGGCAGGACCTGCGTGC    | 1297 |
| Db | 1080 | GCGACTTGGAGATGGCGCAGACCGCGCAAGATCGAGAGACTGTGGCAGGACCTGCGTGC      | 1139 |

[illegible]



QY 638 ACATGCTGACCGAGCTGGCTGACCCCTGAACCTTCCCATGAGCCCATGAGACCGTGC 697  
 DB 480 ATCTGTGACCCAGATCGAGTGCATCTTAACCTTCCCATGAGCCCATTTGAGACGCTGC 539  
 QY 698 CCGTGAAGCTGAAGCCCGGATGAGACGCGCCCAAGGTGAGCAATGGGCCCTGACCGAG 757  
 DB 540 CCGTGAAGTTGAAGCCCGGATGAGACGCGCCCAAGGTGAGCAATGGGCCATTTGACCGAG 599  
 QY 758 AGAAGTCAAGGCTGAGACCGCATTTGAGAGAGATGAGAGAGAGAGAGAGATTCACA 817  
 DB 600 ABAAGTCAAGGCTGAGAGATTCGACCGAGATGAGAGAGAGAGAGAGATTCACA 659  
 QY 818 AGATGAGCCCGGAGAACCCCTCAACAACCCCGTGTTCGCTCAAGAGAGAGAGAGAG 877  
 DB 660 AGATGAGCCCGGAGAACCCCTCAACAACCCCGTGTTCGCTCAAGAGAGAGAGAGAG 719  
 QY 878 CCAAGTGGCGCAAGCTGTGAGATTCCGCGAGCTGAACAAGCGCACCCAGACTTCTGG 937  
 DB 720 CCAAGTGGCGCAAGCTGTGAGATTCCGCGAGCTGAACAAGCGCACCCAGACTTCTGG 779  
 QY 938 AGGTGAGCTGGGACATCCCTCAACCCCGGCTGAGAGAGAGAGAGAGAGAGAGAG 997  
 DB 780 AGGTGAGCTGGGACATCCCTCAACCCCGGCTGAGAGAGAGAGAGAGAGAGAGAG 839  
 QY 998 TGAAGTGGGCGAGCGCTCACTTCAAGGCTGAGAGAGAGAGAGAGAGAGAGAGAG 1057  
 DB 840 TGAAGTGGGCGAGCGCTCACTTCAAGGCTGAGAGAGAGAGAGAGAGAGAGAGAG 899  
 QY 1058 CCTTCACATCCCGAGCATCAACAAGAGACCCCGGCAATCCGCTACAGTCAACAAGTGC 1117  
 DB 900 CCTTCACATCCCGAGCATCAACAAGAGACCCCGGCAATCCGCTACAGTCAACAAGTGC 959  
 QY 1118 TGGCCCAAGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1177  
 DB 960 TGGCCCAAGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1019  
 QY 1178 AGCCCTTCGCGCGCCGCAACCCCGAGATCGTATCTACAGAGAGAGAGAGAGAGAG 1237  
 DB 1020 AGCCCTTCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1079  
 QY 1238 GCGACCTGAGAGATCGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1297  
 DB 1080 GCGACCTGAGAGATCGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1139  
 QY 1298 GCTGGGAGCTTCAACACCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1355  
 DB 1140 GCTGGGAGCTTCAACACCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1199  
 QY 1356 ----CGAGCTGACCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1411  
 DB 1200 GCTACGAGCTGACCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1259  
 QY 1412 GCTGAGCCGTGAAGCAATTCAGAGAGCTGTGGGCAAGCTGAAGTGGGCCAGATCT 1471  
 DB 1260 GCTGAGCCGTGAAGCAATTCAGAGAGCTGTGGGCAAGCTGAAGTGGGCCAGATCT 1319  
 QY 1472 ACCCGGCGATCAAGGTGCGCGAGCTGTGCAAGCTGTGGCGCGCGCGCGCGCGCG 1531  
 DB 1320 ACCCGGCGATCAAGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1379  
 QY 1532 ACATGAGCCCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1591  
 DB 1380 AGGTGATTCCTCTGACCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1439  
 QY 1592 GCGAGCCCGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1651  
 DB 1440 AGAGAGCCCGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1499  
 QY 1652 AGAGAGCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1711  
 DB 1500 AGAGAGCCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1559

QY 1712 CCGGAGAGTACGCGAAGATGCGGACCGCCCAACCAAGAGAGAGAGAGAGAGAG 1771  
 DB 1560 CCGGAGAGTACGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1619  
 QY 1772 CCGTGAAGAGATCGCCATGAGAGAGATCTGTGATCTGGGGGCAAGAGAGAGAGAG 1831  
 DB 1620 CCGTGAAGAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1679  
 QY 1832 TGGCCATCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1891  
 DB 1680 TGGCCATCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1739  
 QY 1892 TCCCGAGTGGAGAGTTCGTGAACACCCCGGCTGTGAGAGAGAGAGAGAGAG 1951  
 DB 1740 TCCCGAGTGGAGAGTTCGTGAACACCCCGGCTGTGAGAGAGAGAGAGAGAG 1799  
 QY 1952 AGGAGCCCATCTACGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2011  
 DB 1800 AGGAGCCCATCTGTGGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1859  
 QY 2012 AGATGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2071  
 DB 1860 AGCTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1919  
 QY 2072 AGACCAACAACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2131  
 DB 1920 ACACCAACAACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1979  
 QY 2132 GCGAGGTGAACATCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2191  
 DB 1980 TGAAGGTGAACATCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2039  
 QY 2192 ACAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2251  
 DB 2040 ACAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2099  
 QY 2252 TGTACCTGAGCTGTGGTCCCGGCGCAACAAGGAGATCGGCGGCAACGAGTGA 2311  
 DB 2100 TGTACCTGAGCTGTGGTCCCGGCGCAACAAGGAGATCGGCGGCAACGAGTGA 2159  
 QY 2312 TGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2371  
 DB 2160 TGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2219  
 QY 2372 TCTACAGTACATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2431  
 DB 2220 TCTACAGTACATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2279  
 QY 2432 TTCCCGGGGCTAGACCGGAGATTC 2457  
 DB 2280 TTCCCGGGGCTAGACCGGAGATTC 2305  
 RESULT 8  
 US-09-393-795-10  
 ; Sequence 10, Application US/09393795  
 ; Patent No. 6958226  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Gray, John T.  
 ; APPLICANT: Mulligan, Richard C.  
 ; TITLE OF INVENTION: Packaging Cell Lines  
 ; FILE REFERENCE: CMCC693P2A  
 ; CURRENT APPLICATION NUMBER: US/09/393,795  
 ; CURRENT FILING DATE: 1999-09-10  
 ; PRIOR APPLICATION NUMBER: US 60/100,063  
 ; PRIOR FILING DATE: 1998-09-12  
 ; PRIOR APPLICATION NUMBER: US 60/100,022  
 ; PRIOR FILING DATE: 1998-09-11  
 ; NUMBER OF SEQ ID NOS: 12  
 ; SOFTWARE: PatSeq for Windows Version 3.0  
 ; SEQ ID NO 10  
 ; LENGTH: 3012  
 ; TYPE: DNA

ORGANISM: Artificial Sequence  
 FEATURE: OTHER INFORMATION: Codon optimized form of HIV pol coding region  
 NAME/KEY: CDS  
 LOCATION: (1)...(3012)  
 US-09-393-795-10

Query Match 71.7%; Score 1762; DB 3; Length 3012;  
 Best Local Similarity 89.3%; Pred. No. 7,5e-281;  
 Matches 1952; Conservative 0; Mismatches 210; Indels 24; Gaps 4;

QY 220 TTCTTCGCGAGAGACTGCGCTTCCCGAGGCGAGGCGCGAGTTCCCGAGGAGCAG 279  
 DB 1 TTTTATGAGGAGATCTGGCTTCCCAAGAGGAGCGCGAGATTCTTCAGAGCAG 60  
 QY 280 AACCGCGCCAAACAGCCCAACAGCGGAGCTGAGGTGGCGG-----CGACAAACCC 333  
 DB 61 ACCAGAGCCCAACAGCCCAACAGAGAGCTTGAAGTTGGGAGAGAGACAACTCC 120  
 QY 334 CGCAGCAGAGCGCGCGCGAGCGCCAGGCA-----CCCTGAATTCCCGCAGATCAC 387  
 DB 121 CTCTCAGAGAGAGAGCGCGATAGCAAGAACTGTATCTTTAGCTTCCCTCAGATCACT 180  
 QY 388 CTGTGCGAGCGCGCGCTGTGAGCATCAAGGTGGCGCGCAGATCAAGAGCGCTTGTG 447  
 DB 181 CTTTGGCAGCGACCCCTCGTCACAATAAGATCGGTGGCGCAGTGAAGGAGCGCTCTGT 240  
 QY 448 GACACCGCGCGCGAGCAGCAGCTGTCTGAGAGATGAGCCGCGCGCGAGTGAAGCGC 507  
 DB 241 GACACCGCGCGCGAGCAGCAGCTGTCTGAGAGATGAGCCGCGCGCGCTGAGAGCGC 300  
 QY 508 AAGATGATCGCGCGCATCGCGGCTTCAATCAAGGTGGCGCGCAGTACAGACATCTGATC 567  
 DB 301 AAGATGATCGCGCGCATCGCGGCTTCAATCAAGGTGGCGCGCAGTACAGACATCTGATC 360  
 QY 568 GAGATCTGCGCGCAAGAGGCCATCGGCACTGTGTGATCGGCGCGCGCGCGTGAATTC 627  
 DB 361 GAGATCTGCGCGCAAGAGGCCATCGGCACTGTGTGATCGGCGCGCGCGCGTGAATTC 420  
 QY 628 ATCGCGCGCAAGATCTGAGCAGCTGAGGTGGCGCGCAGTCACTTCCCATGAGCGCATC 687  
 DB 421 ATCGCGCGCAAGATCTGAGCAGCTGAGGTGGCGCGCAGTCACTTCCCATGAGCGCATC 480  
 QY 688 GAGACCGGTGGCGAGGTGAGCGCGCGCATGAGCGCGCGCGCGCGCGCGCGCGCGCGC 747  
 DB 481 GAGACCGGTGGCGAGGTGAGCGCGCGCATGAGCGCGCGCGCGCGCGCGCGCGCGCGC 540  
 QY 748 CTGACCGAGAGAGATCAAGGCCCTGACCGCATCTGCGAGAGATGAGAGAGAGGCGC 807  
 DB 541 CTGACCGAGAGAGATCAAGGCCCTGAGTGTGAGATCTGACCGAGATGAGAGAGAGGCGC 600  
 QY 808 AAGATCAACAGATGCGCGCGCGCGAGAACCTCTACAAACCCCGGTGTTGCCATCAAGAG 867  
 DB 601 AAGATCTCAAGATGCGCGCGCGAGAACCTCTACAAACCCCGGTGTTGCCATCAAGAG 660  
 QY 868 AAGACAGCAACAGTGGCGGAGGTGAGCTTCCGCGAGCTGAACAAGCGACCCAG 927  
 DB 661 AAGACAGCAACAGTGGCGGAGGTGAGCTTCCGCGAGCTGAACAAGCGACCCAG 720  
 QY 928 GACTTCTGGAGAGTGCAGCTGGGCACTCCCAACCCCGCGCGCTGAGAGAGAGAGAGC 987  
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 QY 988 GTGACCGGTGAGAGTGGCGGAGCGCTTACCTTCAAGCTGGCGCTTGAAGAGAGATTCGCG 1047  
 DB 781 GTGACCGGTGAGAGTGGCGGAGCGCTTACCTTCAAGCTGGCGCTTGAAGAGAGATTCGCG 840  
 QY 1048 AAGTACACCGGCTTCAACATCCCGCAGCATCAACAAGAGAGAGAGAGAGAGAGAG 1107  
 DB 841 AAGTACACCGGCTTCAACATCCCGCAGCATCAACAAGAGAGAGAGAGAGAGAGAG 900  
 QY 1108 TACAACGTGCTGCGCCAGGCGCTGAGAGGCGAGCCCGCAGCATCTTCAAGAGCAGATGAC 1167

DB 901 TACAACGTGCTGCGCCAGGCGCTGAGAGGCGTCCCGGCATCTTCAGTGTCCATGAC 960  
 QY 1168 AAGATCTGAGAGCGCTTCCGCGCGCGCAACCCCGAGATGTGATCTACCA-----GCC 1221  
 DB 961 AAGATCTGAGAGCGCTTCCGCGCGCGCAACCCCGAGATGTGATCTACCA-----GCC 1020  
 QY 1222 CCCCTGAGTGGGCGAGCGACCTGAGATCGGCGAGCAGCGCGCGCGAGATCGAGAGCTG 1281  
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 QY 1342 CCCTTCTGCGCAT-----CGAGTGCACCCCGCAAGTGAACCTGTGAGCGCCCTGTGAG 1395  
 DB 1141 CCCTTCTGAGTGGGCTTACAGCTGACCCCGCAAGTGAACCTGTGAGCGCCCTGTGAG 1200  
 QY 1396 CTGCGCGAGAGAGAGAGCTGAGACCTGAGACCATCAAGAGCTGTGGCGAGAGCTGAG 1455  
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 QY 1456 TGGGCGAGCGAGATCTACCCCGCATCAAGGTGCGCGAGCTGTGCAAGCTGTGCGCGCG 1515  
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 QY 1516 GCCAAGGCGCTGACCGCATGTGCGCTGACCGAGAGAGCGCGAGCTGTGAGAGCTGTGAG 1575  
 DB 1321 ACCAAGGCGCTGACCGAGGTGTGCGCTGACCGAGAGAGCGCGAGCTGTGAGAGCTGTGAG 1380  
 QY 1576 AACCGGAGATCTGTGCGCGAGCGCGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1635  
 DB 1381 AACCGGAGATCTGTGAGAGAGCGCGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1440  
 QY 1636 GTGGCGAGATCTCAAGAGAGAGAGCGCGCAAGTGAAGCTTACAGATCTACAGAGAGAG 1695  
 DB 1441 ATGCGCGAGATCTCAAGAGAGAGAGCGCGCAAGTGAAGCTTACAGATCTACAGAGAGAG 1550  
 QY 1696 TTCAGAGACTGAGAGAGCGCGCAAGTGAAGTGGCGAGCGCGCGCGCGCGCGCGCGCG 1755  
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 QY 1756 AAGCAGCTGACCGAGCGCGGTGAGAGATGTGCGCATGAGAGATCTGTGAGAGAGAG 1815  
 DB 1561 AAGCAGCTGACCGAGCGCGGTGAGAGATGTGCGCATGAGAGATCTGTGAGAGAGAG 1620  
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 DB 1621 ACTCCCAAGTTCAGAGCTGCGCATCAAGAGAGAGCTGGGAGAGCTGTGAGAGAGAGAG 1680  
 QY 1876 TGGCAGGCGACCTGAGATCCCGAGTGGAGTTCGTGAGAACCCCGCGCTGTGAGAGCTG 1935  
 DB 1681 TGGCAGGCGACCTGAGATCCCGAGTGGAGTTCGTGAGAACCCCGCGCTGTGAGAGCTG 1740  
 QY 1936 TGGTACAGCTGAGAGAGAGAGCGCATGTGCGCGCGAGAGCTTCTAAGTGAAGCGCGC 1995  
 DB 1741 TGGTACAGCTGAGAGAGAGAGCGCGCATGTGCGCGCGAGAGCTTCTAAGTGAAGCGCGC 1800  
 QY 1996 GCCAAGCGCGAGACCAAGATCGGAGAGCGCGCTTACGAGAGCGAGCGCGCGCGAGAG 2055  
 DB 1801 GCCAAGCGCGAGACCAAGATCGGAGAGCGCGCTTACGAGAGCGAGCGCGCGCGAGAG 1860  
 QY 2056 ATCGTGAAGCTGACCGAGAGACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2115  
 DB 1861 GTGATGCGCGCTGACCGAGACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1920  
 QY 2116 CTGAGAGAGAGAGAGAGAGAGAGAGAGATGTGAGAGAGAGAGAGAGAGAGAGAGAG 2175  
 DB 1921 CTGAGAGAGAGAGAGAGAGAGAGAGAGATGTGAGAGAGAGAGAGAGAGAGAGAGAG 1980  
 QY 2176 ATCGAGGCGAGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2235

Db 1981 ATCCAGGCCCGACCCGACCAAGTCCGAGTGGTGTCTCCAGATCATCCAGCAGCTG 2040  
Qy 2235 ATCAAGAGAGAGAGAGTGAACCTGAGCTGGTGGCCCGCCACAAAGGCGCATGGCGGCAAC 2295  
Db 2041 ATCAAGAGAGAGAGAGTGAACCTGAGCTGGTGGCCCGCCACAAAGGCGCATGGCGGCAAC 2100  
Qy 2296 GAGCAGATCGAAGAGTGTGTAGCAAGGCGCATCCGCAAGGTGTTCTTCTGACCGGATC 2355  
Db 2101 GAGCAGATCGAAGAGTGTGTGTGTCCGCGGCGATCCGCAAGGTGTTCTTCTGACCGGATC 2160  
Qy 2356 GATGGCGGCGATGTGATCTTACCACTA 2381  
Db 2161 GACAAAGCCCGACGAGAGACGAGAA 2186  
  
RESULT 9  
US-09-552-950-2  
Sequence 2, Application US/09552950  
Patent No. 6541248  
GENERAL INFORMATION:  
APPLICANT: Oxford Biomedica (UK) Limited  
TITLE OF INVENTION: Anti-Viral Vectors  
FILE REFERENCE: 674524-2004  
CURRENT APPLICATION NUMBER: US/09/552,950  
CURRENT FILING DATE: 2000-04-20  
NUMBER OF SEQ ID NOS: 22  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 2  
LENGTH: 4307  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: gaspol - synsp - codon  
US-09-552-950-2  
  
Query Match 66.2%; Score 1626.6; DB 3; Length 4307;  
Best Local Similarity 82.2%; Pred. No. 1.4e-258;  
Matches 1951; Conservative 0; Mismatches 394; Indels 28; Gaps 6;  
  
Qy 12 CATGGCGGAGGCCATGAGCCAGG--CCACGAGCGCCAACTCTGATGACGCGACGAA 68  
Db 1086 CTGGCTGAGGCCATGAGCGGATGACCAACTCCGCTACATCATGATGACGCGCGCAA 1145  
Qy 69 CTTCAAGGGCCCCAAGCGATCATCAAGTCTTCACTGCGGCAAGAGGCGCAACTCC 128  
Db 1146 CTTTCGGAACCAACGCAAGATCGTCAAGTCTTCACTGCGCAAGAGGCGCAACACG 1205  
Qy 129 CCGCACTGCGCGCGCCCGCCGCAAGAGGCTGCTGGAAGTGGCGCAAGAGGCGCA 188  
Db 1206 CCGCACTGCGAGGCGCCCTTAGAGAAAAGGCTCTGGAATGCGCAAGAGGCGCA 1265  
Qy 189 GATGAAGACTGCAACGAGCGCGAGGCCAACTTCTTCCGAGAGACTGGCTTCCCA 248  
Db 1266 GATGAAGACTGACGAGAGAGAGAGAGGCTAA-TTTTAAAGGAGATCTGGCTTCTTACA 1324  
Qy 249 GGGCAAGCGCGGAGTGTCCCGACGAGCAACCGCGCCAAAGCGCCCAACGCGCGCA 308  
Db 1325 AGGAAAGGCGAGGAAATTTTCTTCAAGAGACCGCGCCAAAGCGCCCAACGCGCGCA 1384  
Qy 309 GGTGACAGT-----GCGCGGCGCAACCCCGCAGAGAGCGCGCGCGAGCGCGCA 362  
Db 1385 GCTTCAAGTGTGGGGTGTGCGACAACACTCCCTCCGAGCAGAGAGCGGCGCGCAAGG 1444  
Qy 363 CA-----CCCTGAACCTTCCCGCAGATCACTCTGTGCAAGCGCGCTGTGATCA 416  
Db 1445 CAGGATGTCTCTTAACCTTCCCTCAGGTCAAGCTTTGGACAGACCCCTGTCACTCA 1504  
Qy 417 GGTGGCGCGCAATCAAGAGGCTGTGTGACACCGCGCGCGAGACACCTGTCTGA 476  
Db 1505 GATCGGGGGCGACGTAAGAGGCTCTCTGACACCGAGAGACAGACACCTGTCTGA 1564  
Qy 477 GAGATGAGCGCTGCGCGGCGAGTGAAGCCCAAGATGATGGCGGCGATCGCGGCTTCA 536

Db 1565 GAGATGTGTGTGCGAGCGCGCTGGAAGCGCAAGTGAATCGGGGGAATCGGGGCTTCA 1624  
Qy 537 CAAGGTGGCGCGATGACACCGAGATCTGATGAGATCTGGCGGCAAGAGCCATCGGCAC 596  
Db 1625 CAAGGTGGCGCGATGACACCGAGATCTGATGAGATCTGGCGGCAAGAGCCATCGGCAC 1684  
Qy 597 CGTGTGATCGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 656  
Db 1685 CGTGTGTGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1744  
Qy 657 CTGACCGCTGAACCTTCCCATGAGCCCATGAGACCGTGGCGCGCGCGCGCGCGCGCG 716  
Db 1745 TTGACGCTGAACCTTCCCATGAGCGCTTATGAGACGCTGACGCGTGAACCTGAAGCCG 1804  
Qy 717 CATGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 776  
Db 1805 GATGACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1864  
Qy 777 CGCATCTGCGAGAGATGAGAGAGAGAGAGAGATCACCAAGATCGCGCGCGAGAACCC 836  
Db 1865 GAGATTTGACAGAGATGAGAAAGAGAGAGAAATCTCCAGATTGGCGCTGAGAACCC 1924  
Qy 837 CTACAAACACCCCGTGTGTGCGCATCAAGAGAGAGACAGACCGAGTGGCGCAAGTGGT 896  
Db 1925 GTACAAACAGCGCGGTGTGCGCATCAAGAGAGAGAGCTGACGAGAAATGCGCAAGCTGT 1984  
Qy 897 GGAATTTCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 956  
Db 1985 GGAATTTCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2044  
Qy 957 CCACCCCGCGCGCTGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1016  
Db 2045 GACACCCCGAGGCGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2104  
Qy 1017 CTTCAAGCTGTCCCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1076  
Db 2105 CTTCTCCGTTCCCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2164  
Qy 1077 CAACAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1136  
Db 2165 CAACAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2224  
Qy 1137 CAGCCCGACATCTTCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1196  
Db 2225 CTCTCCGAGATCTTCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2284  
Qy 1197 CCGCGAGATGTGATCTTACA-----GGCCCCCTGTACGTGGCGAGCGACTGGAGAT 1250  
Db 2285 CCGCGAGATGTGATCTTACA-----GGCCCCCTGTACGTGGCGAGCGACTGGAGAT 2344  
Qy 1251 CCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1310  
Db 2345 AGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2404  
Qy 1311 CACCCCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1364  
Db 2405 CACCCCGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2464  
Qy 1365 CCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1424  
Db 2465 CCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2524  
Qy 1425 CGACATCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1484  
Db 2525 CGACATCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2584  
Qy 1485 GGTGGCGCGAGCTGTGCAAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1544  
Db 2585 GGTGGCGCGAGCTGTGCAAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2644  
Qy 1545 GACCGAGAGAGCGAGCTGAGCTGAGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1604

|                                            |      |                                                                  |      |
|--------------------------------------------|------|------------------------------------------------------------------|------|
| Db                                         | 2645 | AAACGAGAGAGCCGAGCTCCAACTGGGAGAAAACCGAGAGATCTCTAAAGAGCCCTGGCA     | 2710 |
| QY                                         | 1605 | CGGCGGTGTACTACGACCCCAAGCAAGACCTTGTGGCCGAGATCCAGAGCAAGGCCACGA     | 1664 |
| Db                                         | 2705 | CGGCGGTGTACTATGACCCCTCCAAAGGACCTGATCGCGAGATCCAGAGCAAGGCCAAGG     | 2764 |
| QY                                         | 1665 | CCAGTGGACCTTACCAAGATCTTACAGAGAGCCCTTTAAAGACTTGAAGACCGGCAAGTACGC  | 1724 |
| Db                                         | 2765 | CCAGTGGACCTTATCAGATTATACAGAGAGCCCTTTAAAGACTTGAAGACCGGCAAGTACGC   | 2824 |
| QY                                         | 1725 | CAAGATGGACACCGCCCAACCAACGACGTGAAGCACTGACCGAGGCCGTGCAGAAAGAT      | 1784 |
| Db                                         | 2825 | CCGAGATGAGGGGTGTCCCAACTTAACGACGTCAACAGACTGACCGAGGCCGTGCAGAAAGAT  | 2884 |
| QY                                         | 1785 | CGCCATGAGAGAGCATCTGTGATCTTGGGGCAAGACCCCAAGTTCCGCTGCCATCCAGAA     | 1844 |
| Db                                         | 2885 | CACCAACGAAAGCATCTGTGATCTTGGGGAAAGACTCTTAAGTTCAAGCTGCCCATCCAGAA   | 2944 |
| QY                                         | 1845 | GGAGACTTGGGAGACTTGTGTGACCCGACTTACTGGCAGGCCACCTTGATTCCTCCGAGTGGG  | 1904 |
| Db                                         | 2945 | GGAAACCTGGGAAACCTGTGTGACAGAGTATTGGCAGGCCACCTTGAGTTCTTGAGTGGGA    | 3004 |
| QY                                         | 1905 | GTTGTGTGAACAACCCCCCCTGTGTGAAGCTGTGGTACCACTGGAGAGAGGCCATCAT       | 1964 |
| Db                                         | 3005 | GTTGTGTGAACAACCCCTCCCTGTGTGAAGCTGTGTGACCACTGGAGAGAGGCCATCAT      | 3064 |
| QY                                         | 1965 | CGGCGCCGACGACTTGTCTTACGTGTGAACGGCGCCGCAACCGCCAGACCAAGATCGGCAAGGC | 2024 |
| Db                                         | 3065 | GGGCGCGCAAACTTTCTTACGTGTGATGGGGCCGCTTAAAGGGAGACTTAAGCTGGGCAAAAGC | 3124 |
| QY                                         | 2025 | CGGCTTACGTGAACCGACCGGGGCGGCGAGAAAGTGTGAGCTTGACCGAGACCAACCA       | 2084 |
| Db                                         | 3125 | CGGATACCTGTCACTAAACCGGGGCAAGCAGAAAGTTGTCAACCTTCACTGACACCAACCA    | 3184 |
| QY                                         | 2085 | GAAAGACGAGGTGACAGCGCATCCAGCTGACCTGGCCCTGCAAGACAGCGGACGAGTGAACAT  | 2144 |
| Db                                         | 3185 | GAAAGACTGAGCTGACAGGCCATTTTACCTTGCTTTGACAGACTCGGGCCTGGAGGTGAACAT  | 3244 |
| QY                                         | 2145 | CGTGACCGACAGCCAGTACGCGCCTGTGGGATCATCCAGGCCCAAGCCCAAGAGCGAGAG     | 2204 |
| Db                                         | 3245 | CGTGACAGACTCTCAGTATGCGCCTGTGGGATCATTTAAAGCCCAAGCAGAGTGAAGTC      | 3304 |
| QY                                         | 2205 | CGAGCTGTGTGAACCAAGATCATTCAGACAGCTGATCAAGAGGAAAGGTGTACTTGAAGCTG   | 2264 |
| Db                                         | 3305 | CGAGCTGTGTCAATCAGATCATTCAGACAGCTGATCAAGAGGAAAGGTGTACTTGGCCTG     | 3364 |
| QY                                         | 2265 | GCTGCCGCCGCCCAAGAGGCGATCGGGGGGAAAGAGAGATTCGACAAAGCTGTGAGCAAGG    | 2324 |
| Db                                         | 3365 | GGTACCCGCCCAAGAGGCAATTGGGGGCAATAGAGAGGTTCGACAAAGCTGTGCTCGGCTGG   | 3424 |
| QY                                         | 2325 | CATCCGCAAGGTGCTGTTCTCTTGAACGGCATCGA                              | 2357 |
| Db                                         | 3425 | CATCAGGAAGGTGCTATTCTTGATGGCATCGA                                 | 3457 |
| RESULT 10                                  |      |                                                                  |      |
| US-09-936-572-2                            |      |                                                                  |      |
| Sequence 2, Application US/09936572        |      |                                                                  |      |
| Patent No. 6783981                         |      |                                                                  |      |
| GENERAL INFORMATION:                       |      |                                                                  |      |
| APPLICANT: UDEN, MARK                      |      |                                                                  |      |
| APPLICANT: MITROPHANOUS, KYRIACOS          |      |                                                                  |      |
| TITLE OF INVENTION: ANTI-VIRAL VECTORS     |      |                                                                  |      |
| FILE REFERENCE: 078883/0137                |      |                                                                  |      |
| CURRENT APPLICATION NUMBER: US/09/936, 572 |      |                                                                  |      |
| CURRENT FILING DATE: 2001-12-11            |      |                                                                  |      |
| PRIOR APPLICATION NUMBER: PCT/GB00/01002   |      |                                                                  |      |
| PRIOR FILING DATE: 2000-03-17              |      |                                                                  |      |
| PRIOR APPLICATION NUMBER: GB 9906177.2     |      |                                                                  |      |
| PRIOR FILING DATE: 1999-03-17              |      |                                                                  |      |
| NUMBER OF SEQ ID NOS: 73                   |      |                                                                  |      |
| SOFTWARE: PatentIn Ver. 2.1                |      |                                                                  |      |
| SEQ ID NO 2                                |      |                                                                  |      |

|    |                                                                      |                                         |
|----|----------------------------------------------------------------------|-----------------------------------------|
|    | : LENGTH: 4307                                                       |                                         |
|    | : TYPE: DNA                                                          |                                         |
|    | : ORGANISM: Artificial Sequence                                      |                                         |
|    | : FEATURE:                                                           |                                         |
|    | : OTHER INFORMATION: Description of Artificial Sequence:             |                                         |
|    | : OTHER INFORMATION: gaspol-synsp-codon optimised gaspol sequence    |                                         |
|    | -US-09-936-572-2                                                     |                                         |
|    | Query Match                                                          | 65.4%; Score 1607.4; DB 3; Length 4307; |
|    | Best Local Similarity                                                | 81.7%; Pred. No. 2e-255;                |
|    | Matches 1939; Conservative                                           | 0; Mismatches 406; Indels 28; Gaps 6;   |
| Oy | 12 CATGAGCGAAGGCATGTAGCCAGG---CCACGAGCGCAACATCTTGATGACGCCAGCAA       | 68                                      |
| Dd | 1086 CTTGGCTGAGGCCCATGTAGCCAGGTGACCACCACTCGGCTACATCATGTATGTAGCGCGGCA | 1145                                    |
| Oy | 69 CTTCAAGGGCCCCAAGCGCATCATAGTGTCTTAATCTGCCGCAAGAGGGCCCATATGC        | 128                                     |
| Dd | 1146 CTTTCGGAAACAAGCAAGATGCTCAAGTGTCTTAATCTGTGCAAGAAGGGCACACAGC      | 1209                                    |
| Oy | 129 CCGCAACTGCGCGCGCCCCCGCAAGAGGGGTGTGGAAGCGGCAAGAGGGCCACCA          | 188                                     |
| Dd | 1206 CCGCAACTGCAAGGGCGCCCTAGAAAAAAGGGCTGTGAAAATGCGGCAAGAAAGCCCA      | 1265                                    |
| Oy | 189 GATGAAGGACTGCACCGAGCGCCAGGCCCAATTCTTCCGCGAGGACTGGCTTCCC          | 248                                     |
| Dd | 1286 GATGAAGGACTGTACTGTAGAGACAGGCTTA-TTTTTTAGGAAATCTGGCTTCTACA       | 1332                                    |
| Oy | 249 GGCGAAGGCGCCCGAGTTCCCAAGCGAGCAAAACCGCGCAACAGCCCAACAGCCGCA        | 308                                     |
| Dd | 1335 AGGGAAGGCCAAGGAAATTTTCTTGAGACAGAACAGACAGCCCAACAGMAAGAGA         | 1384                                    |
| Oy | 309 GCTGCAAGTGTGCGG-----GACAAACCCCGCAGCGAGCGCCGCGCGAGCGCAAGG         | 362                                     |
| Dd | 1385 GCTTCAGGTCTGGGGTAGAGACAACATCTCCCTCAAAACAGAGCGCAGTAGACAAG        | 1444                                    |
| Oy | 363 CA-----CCCGAACTTCCCCAGATCACCTGTGAGCGCGCCCTGTGAGCATCA             | 416                                     |
| Dd | 1445 AACTGTATCTTTTAACTTCCCTCAGATCACTTTTGGCAAGACCCCTGTCTACATAATA      | 1500                                    |
| Oy | 417 GGTGGCGCGCGCATCAAGAGAGCCCTGTGCAACCGCGCGCGAGCACACGTCCTGGA         | 476                                     |
| Dd | 1505 GATTAGGGGGGAGAGCTCAAGAGAGCTCTCTGGAACACCGAGACAGCACCGTCTGGA       | 1564                                    |
| Oy | 477 GGAGATGAGCCTGCGCGGCAAGTGAAGCCCAAGTGAATCGGCGGCATTCGGCGCTTCA       | 536                                     |
| Dd | 1565 GGAGATGATGTTGTCAGAGCGCGCTGGAACCGGAAGTGAATCGGGGAATTCGGCGTTCAT    | 1622                                    |
| Oy | 537 CAAGTGGCGGCAGTACAGACCAATCTCTATCGAGATCTGCGGCAAGAAAGGCCATCGGAC     | 596                                     |
| Dd | 1625 CAAGTGGCGGCAGTATGACCAATCTCTATCGAAATCTGCGGCGCAAGAGCTATCGGTAC     | 1688                                    |
| Oy | 597 CGTGGTGAATCGAGCCCAACCCCGGTGAACATCATCTGCGCGCAACATGTGACCCAGCTGG    | 656                                     |
| Dd | 1685 CGTGGTGGTGGGCCCCACACCCGTCAATCATTCGGAAGCAACGTGTGAGCGCAATCGG      | 1744                                    |
| Oy | 657 CTGCAACCCCTGAACCTTCCCATGAGCCCATGAGACCGTGTCCCGTGAAGCTGAAGCCGG     | 716                                     |
| Dd | 1745 TTGCAACGCTGAACCTTCCCATTAAGCCCTTACAGACGAGTACCGGTGAAGCTGAAGCCGG   | 1800                                    |
| Oy | 717 CATGACCGGCCCCAAGGTGAACAATGTGCCCCCTGACCGAGGAAAGATCAAGGCCCTGAC     | 776                                     |
| Dd | 1805 GATGACCGGCCCCAAGGTCAACCAATGTGCAATTGACAGAGGAAAGATCAAGCACTGGT     | 1864                                    |
| Oy | 777 CGGCATCTGCGAGAGATGGAAGAAGAGGCAAGATCAACCAAGTCCGCCCGAGAACCC        | 836                                     |
| Dd | 1865 GAGAGTTTTCACAGAGATGGAAGAAGAGGAAATCTCAAGATTGGGCTGAGAACCC         | 1922                                    |
| Oy | 837 CTACACACACCCCGTGTTCGCATCAAGAAAGAGACAGACCAAGTGGCGCAAGTGGT         | 896                                     |
| Dd | 1925 GTACAAACAGCGCGTGTTCGCATCAAGAAAGAGACTGCAAGAAATGCGCAAGCTGGT       | 1988                                    |
| Oy | 897 GGACTTCGCGAGCTGAACAACGCCACCAAGACTTCTGGAGGTGACGTGGGACATCC         | 956                                     |







QY 249 GGGCAAGCCCCGAGTTCCTCCAGCAGAACCCGCCCAAGCCCCCAACGCGCGCA 308  
 DB 1345 AGGGAAAGGCGAGGAAATTTTCTTCAAGAGCAGACCAAGGCCAACAGCCCCCAAGAAAGAG 1404  
 QY 309 GCTGCAAGTTCGCGG-----CGAACACCCCGCAGAGAGCCGCGGCCGAGGCCCAAGG 362  
 DB 1405 GCTTCAGGTTTGGGAAAGAACAACTCTCTCAAGAGCAGAGCCGATAGAACAGG 1464  
 QY 363 CA-----CCCTGAACCTTCCCGCAGATCACCTGTGGCAGCGCCCCCTGTGACATCAA 416  
 DB 1465 AACCTGATCTTTAGCTTCCCTCAGATCACTTTGGCAGCAGACCTCTGTCAATTA 1524  
 QY 417 GGTGGGCGGCAGATCAAGAGGCCCTGCTGACAACCGGCGCGACACACCTGTCTGGA 476  
 DB 1525 GATAGGGGGGCACTGAAGAGGCTCTCTGACAACCGAGCAGACGACACCTGTCTGGA 1584  
 QY 477 GGAATGAGCCTTCGCGCAATGGAAGCCCAAGATGATCGGCGGCATTCGGCGCTTCAT 536  
 DB 1585 GGAGATGTCTGTCAGAGCGCTGGAAGCCGAAGATGATCGGGGGAATCGCGGTTTCAT 1644  
 QY 537 CAAGTGGCGCAGATGACAGATCTGATCGATGCGGCAAGAAAGCCATCGGCAC 596  
 DB 1645 CAAGGTGCGCAGATGACAGATCTGATGAAATCTGCGGCCACAAAGGCTATCGGTAC 1704  
 QY 597 CGTGTGATGAGGCCCAACCCCGTGAACATCATCGCGCGCAACATGCTGAACCGAGTGG 656  
 DB 1705 CGTGTGTGTGGGCCCAACCCCGTGAACATCATCGAGCGCAACCTGTTGAACGAGATCGG 1764  
 QY 657 CTGCACTCTGAACCTTCCCATCAGCCCCCATGAGACCTGTGCCGTGAAGCTGAAGCCCG 716  
 DB 1765 TTGCACTCTGAACCTTCCCATCAGCCCCCATGAGACCTGTGAAGCTGAAGCCCG 1824  
 QY 717 CATGAGAGGCCCCCAAGGTGAAGCAGTGGCCCCGAGAGAAAGATCAAGGCCCTGAC 776  
 DB 1825 GATGAGAGGCCCCCAAGGTGAAGCAGATGCAATGACAGAGAGAAAGATCAAGGCACTGAT 1884  
 QY 777 CGGCATCTGCGAGAGATGAGAGAGAGGCGCAAGATCAACAGATCGGCCCCCGAGAAC 836  
 DB 1885 GGAGATTTGCAAGAGATGAGAAAGAGAAAGGGAATCTCAAGATTTGGGGCTGAGAAC 1944  
 QY 837 CTACAAACACCCCGCTGTTCCTCCATCAAGAAAGAGAGACGCAAGTGGCGCAAGCTGT 896  
 DB 1945 GTACAAACACCCCGCTGTTCCTCCATCAAGAAAGAGAGCTGCAAGAAATGGCGCAAGCTGT 2004  
 QY 897 GGAATTCGCGAGGCTTGAACAGCGCACCGCAAGCTTCTGGAGGATGAGCTGGCATCCC 956  
 DB 2005 GGAATTCGCGAGGCTTGAACAGCGCACCGCAAGCTTCTGGAGGATGAGCTGGCATCCC 2064  
 QY 957 CACCCCGCGCGCTGAAAGAGAAAGAGCGTGAACGCTGTGACGCTGGCGACGCTCA 1016  
 DB 2065 GCAACCCCGCGAGGCTGAAAGAGAAAGAAATCGTGACGCTGATGTGGGTGATGCTCA 2124  
 QY 1017 CTTGAGCGTGGCCCTGGAAGAGACTTCCGCAAGTACACGCTTTCACCATCCCAAGCAT 1076  
 DB 2125 CTTCTCGGTTCCCTGGAAGAGACTTCCGCAAGTACACCTTTCACCATCCCTTCAT 2184  
 QY 1077 CAACAGAGAGCCCCCGGACATCCGCTACCAATCAACGCTGTGCCCAAGGCTGGAAGG 1136  
 DB 2185 CAACAGAGAGCCCCCGGAGATTCGATACACGCTGTGCCCAAGGCTGGAAGG 2244  
 QY 1137 CAGCCCCAGCATCTTCCAGAGCAGATGACCAAGATCTGTGAGCCCTTCCCGCGCGCA 1196  
 DB 2245 CTCTCCGCAATCTTCCAGAGTACATGACCAAAATCTGTGAGCTTTCGCCCAAGAGAA 2304  
 QY 1197 CCGCGAGATGATGATCA-----GGCCCCCTGTGACGTGGCGACGACCTGAGAT 1250  
 DB 2305 CCGCGACATGATGATCACTATCAGTACATGATGACTTGTGACGTGGCTCTGATCTAGAGAT 2364  
 QY 1251 CGGCGAGAGCCGCGCAAGATGAGAGAGCTGGCAAGACCTGCTGGCGCTGGGCTTAC 1310  
 DB 2365 AGGCGAGACCGCACCAAGATGAGAGCTGGCGACGACCTGTTGAGGTGGGACTGAC 2424

QY 1311 CACCCCCCAAGAAAGCACAGAGAGGCCCCCTTCTGAGCCAT-----CGAGCTGCA 1364  
 DB 2425 CACACCGCAAGAAAGCACAGAGAGGCTTCCCTTCTCTGTGATGGTTACAGACTGCA 2484  
 QY 1365 CCGCGCAAGTGGACCGTGCAGGCCATCGAGCTGCCGAGAAAGAGCTGACCGTGA 1424  
 DB 2485 CCTGCAAAATGAGCCGTGACGCTATCGGTGCTGCAGAGAAAGACAGCTGACCTGCA 2544  
 QY 1425 CGACATCCAGAGCTGTGGGCAAGCTGAACTGTGGGCAAGCTCACTTACCCCGCATCA 1484  
 DB 2545 CGACATACAGAGCTGTGGGCAAGCTGAACTGTGGGCAAGCTCACTTACCCCGCATCA 2604  
 QY 1485 GGTGGCGCAGCTGTGAGGTGGCGCGCGCGCAAGGCCCTGACGACATCTGTGCCCT 1544  
 DB 2605 GGTGAGGAGCTGTGCAAACTCTCCGCGAAGCAAGGCACTACAGAGTATCCCT 2664  
 QY 1545 GACGAGAGGCGCAGCTGAGTGGCCGAGAACCCGAGATCTGTCCGAGGCCCTGCA 1604  
 DB 2665 AACCGAGAGGCGCAGCTGAGTGGCGAGAAACCGAGAGATCTTAAAGAGCCCGTGA 2724  
 QY 1605 CGGCGTGTACTACGACCCCAAGAGACCTGTGGCGCGAGATCAAGAGAGGCCCA 1664  
 DB 2725 CGGCGTGTACTAGACCCCTCAAGAGACCTGATGCGCGAGATCAAGAGAGGCCCAAGG 2784  
 QY 1665 CCACTGACCTTACAGATCTTACAGAGAGCCCTTCAAGAACCTGAAAGCCGCAAGTACG 1724  
 DB 2785 CCACTGACCTTACAGATCTTACAGAGAGCCCTTCAAGAACCTGAAAGCCGCAAGTACG 2844  
 QY 1725 CAAGATGCGCACCGGCCCAACCAAGACGTAAGACAGCTGACCGAGGCCGTGCAAGAT 1784  
 DB 2845 CCGAGTGAAGGAGGCGCCACACTTACAGACGTCAGAGCTGACCGAGGCCGTGCAAGAT 2904  
 QY 1785 CGCCTATGAGAGCATGTGTATCTGGGGCAAGACCCCAAGTTCGCTGCCATCCGAA 1844  
 DB 2905 CACCAACGAAAGCATGTGTATCTGGGGCAAGACCTTCAAGTTCGCTGCCATCCGAA 2964  
 QY 1845 GGAGACTTGGGAGACCTGTGTGACCACTTCTGGAGGCCCACTGATTCCTGATGGGA 1904  
 DB 2965 GGAACCTTGGGAAACCTGTGTGACAGATTTGGAGGCCCACTGATTCCTGATGGGA 3024  
 QY 1905 GTTCGTGACACCCCGCTGTGAAAGCTGTGTACAGCTGAGAGAGGCCATCAT 1964  
 DB 3025 GTTCGTGACACCCCGCTGTGAAAGCTGTGTACAGCTGAGAGAGGCCATCAT 3084  
 QY 1965 CGGCGCGGAGACCTTTCATGTGAGCGCGCGCCCAACCGAGACCAAGATCGGCAAGCC 2024  
 DB 3085 GGGCGCGGAAACCTTTCATGTGATGGGCGCGCTTAAAGGAGAGCTAAGCTGGCGCAAGC 3144  
 QY 2025 CGGCTTATGTGACCGAGCGGGCGCGAGAGATCTGTGACCGAGACCAACCA 2084  
 DB 3145 CGGATATGTCACTTAAACGGGGCAGACAGAAAGTTGTCACTCTCACTGACACACCA 3204  
 QY 2085 GAAGACGAGCTGAGGCACTTCCAGCTGCGCTTCAAGAGCGGCGAGAGGTGAACAT 2144  
 DB 3205 GAGACTGAGCTGAGGCACTTTCATCTCGCTTTCAGAGACTCGGCGCTGAGAGGTGAACAT 3264  
 QY 3205 GAGACTGAGCTGAGGCACTTTCATCTCGCTTTCAGAGACTCGGCGCTGAGAGGTGAACAT 3264  
 DB 3265 GGTGCGCGCCCAAGGCGCATCGGCGCGCAACGAGACATGCAAGCTGTGACCAAGG 2324  
 QY 3385 GGTGCGCGCCCAAGGCGCATTTGGCGCGCATGAGAGAGTGAACAGCTGTGTGGCGCTG 3444  
 DB 2325 CATCCGAGAGTGTCTTCTGAGCGGCTGCA 2357  
 QY 3445 CATCAGAGAGGTGTCTTCTGAGTGCATGCA 3477



QY 1725 CAAGATGCGCACCGCCACACCAACGATGAGCACTGACCGAGCCCTGCAGAAAT 1784  
 DB 2871 CCGATGAGGGGTGCGCCACTTAACGATCAAGCAGCTGACCGAGGCGGTGACAGAAAT 2930  
 QY 1785 CGCCATGAGAGCATCTGATATCTGGGGCAAGCCCGCAAGTTCCGCTGCCATCCAGA 1844  
 DB 2931 CACCAACCGAAGCATCTGATCTGGGGAAAGACTCTTAAGTTCAAGCTCCATCCAGAA 2990  
 QY 1845 GAGACCTGGAGAGACTGTGTGACCGACTACTGAGCAGGCGCACTGTGATCCCGAGTGG 1904  
 DB 2991 GAAACCTGGAGAACTGTGTGACAGAGATTTGGCAGGCGCACTGTGATCTGAGTGG 3050  
 QY 1905 GTTGTGAAACACCCCGCCCTGTGTGAAAGTGTGTGACAGCTGAGAGAGAGCCATCAT 1964  
 DB 3051 GTTGTGAAACACCCCGCCCTGTGTGAAAGTGTGTGACAGCTGAGAGAGAGCCATCAT 3110  
 QY 1965 CGGCGCGGAGACTTCTTACGTGAGCGGCGCGCAACCGCGAGACCAAGATCGGCAAGC 2024  
 DB 3111 GGGCGCGGAAACCTTCTTACGTGAGCGGCGCGCTAACAGGAGACTTAAGCTGGCAAAAC 3170  
 QY 2025 CGGCTACGTGACCGACCGGGGGCGGCAAGATCGTACGCTGACCGAGACCAACCAAC 2084  
 DB 3171 CGGATACGTACCTAACCGGGGAGAGAGAGTTGTCACTTCACTGACCAACCAACCA 3230  
 QY 2085 GAAGACCGAGCTGACAGCGCATCCAGCTGGCCCTGACAGACAGCGGAGCGAGTGAACAT 2144  
 DB 3231 GAAGACGTAGCTGACAGCGCATTTAAGCTGGTGTGAGAGACTCGGCGCTGAGAGTGAACAT 3290  
 QY 2145 CGTACCGAGACGAGTACGCGCTGGCATCTCAAGGCGCGACCGCAACAGCGCAGAG 2204  
 DB 3291 CGTACAGACTCTCACTATGCGCTGGCATCTTCAAGCGCGACCGCAACAGAGTGAACAT 3350  
 QY 2205 CGAGCTGTGAACCATATCATGAGCAGCTGATCAAGAGAGAGAGTGTGATCTGACATG 2264  
 DB 3351 CGAGCTGTGATCATGATCATGAGCAGCTGATCAAGAGAGAGAGTGTGATCTGACATG 3410  
 QY 2265 GGTGCGCGCCACCAAGGCGCATCGCGCGCAACGAGCATGACAGCTGTGAGCAAGG 2324  
 DB 3411 GGTACCGCGCCACCAAGGCGCATTTGGCGGCAATGAGCAGGTGACAGAGTGTCTCGGCTGG 3470  
 QY 2325 CATCCGCAAGTGTCTGTTCTTGGACGCGATCGA 2357  
 DB 3471 CATCAGAAAGTGTCTTCTTCTGATGCGATCGA 3503

## RESULT 13

US-09-936-572-12  
 ; Sequence 12, Application us/09936572  
 ; Patent No. 6783981

## GENERAL INFORMATION:

; APPLICANT: UDEN, MARK  
 ; APPLICANT: MITROPHANOUS, KYRIACOS  
 ; TITLE OF INVENTION: ANTI-VIRAL VECTORS  
 ; FILE REFERENCE: 078883/0137  
 ; CURRENT APPLICATION NUMBER: US/09/936,572  
 ; PRIOR FILING DATE: 2001-12-11  
 ; PRIOR APPLICATION NUMBER: PCT/GB00/01002  
 ; PRIOR FILING DATE: 2000-03-17  
 ; PRIOR APPLICATION NUMBER: GB 9906177.2  
 ; PRIOR FILING DATE: 1999-03-17  
 ; NUMBER OF SEQ ID NOS: 73  
 ; SOFTWARE: Patentin Ver. 2.1  
 ; SEQ ID NO 12  
 ; LENGTH: 4642  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: pSNGP2-codon  
 ; OTHER INFORMATION: Optimised HIV-1 gagpol with leader sequence  
 US-09-936-572-12

Query Match 65.1%; Score 1599.4; DB 3; Length 4642;

Best Local Similarity 81.5%; Pred. No. 4,1e-254;  
 Matches 1934; Conservative 0; Mismatches 411; Indels 28; Gaps 6;

QY 12 CATGCGCAGGCGCATAGCCAGG---CCACAGCGCCCAACATCTGATGACCGCAGCA 68  
 DB 1421 CTTGCTGAGGCGCATAGGCGCATAGGCGCATAGGCGCATAGGCGCATAGGCGCATAG 1480  
 QY 69 CTTCAAGGGCCCCCAAGCCGATCATGAGTGTCTTAAGTCCGCGCAAGAGGCGCATAGCC 128  
 DB 1481 CTTTGGAAACCAACCGAAGATGTCAAGTGTCTTAAGTCCGCGCAAGAGGCGCATAGCC 1540  
 QY 129 CCGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 188  
 DB 1541 CCGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1600  
 QY 189 GATGAAGACCTGACCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 248  
 DB 1601 AATGAAGATTTACTGAGAGACAGGCTTA-TTTTTAAAGGAAGATCTGGCTTCCACA 1659  
 QY 249 GGGCAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 308  
 DB 1660 AGGGAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1719  
 QY 309 GGTGAGGTTGGCGG-----CGACAAACCCCGCGAGCGCGCGCGCGCGCGCGCGCGCG 362  
 DB 1720 GCTTCAAGTTTGGGAGAGAGACAACTCTCTTCAAGAGCAGAGCGGATGACAGG 1779  
 QY 363 CA-----CCCTGAATCTCCCAAGATCACTGTGCGAGCGCGCGCGCGCGCGCGCGCG 416  
 DB 1780 AACTGATCTTTAGTCTCTCTCAAGATCACTTTTGGAGCGCGCGCGCGCGCGCGCGCG 1839  
 QY 417 GGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 476  
 DB 1840 GATTAAGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1899  
 QY 477 GGAATGAGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 536  
 DB 1900 GGAATGCTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1959  
 QY 537 CAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 596  
 DB 1960 CAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2019  
 QY 597 CGTGTGATGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 656  
 DB 2020 CGTGTGATGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2079  
 QY 657 CTGCAACCTGGAACCTTCCCATCAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 716  
 DB 2080 TTGACGCTGAACTTCCCATTTAGCCCTTACGAGCGGTACCGGTGAACTGAAACCGCG 2139  
 QY 717 CATGACGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 776  
 DB 2140 GATGACGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2199  
 QY 777 CGCATCTGCGAGAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 836  
 DB 2200 GGAGATTTGACAGAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2259  
 QY 837 CTACAAACACCCCGGTGTCCTATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 896  
 DB 2260 GTACAAACACCCCGGTGTCCTATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2319  
 QY 897 GGAATTCGCGAGCTGAACAGCGCACCGAGACTTCTGAGAGTGTGAGTGTGAGTGTGAGT 956  
 DB 2320 GGAATTCGCGAGCTGAACAGCGCACCGAGACTTCTGAGAGTGTGAGTGTGAGTGTGAGT 2379  
 QY 957 CAACCCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1016  
 DB 2380 GCACCCCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2439  
 QY 1017 CTTCAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1076

Db 2440 CTTCTCCGTTCCCTGAGCAAGAACTTCAGAAAGTACCTGCTTCAACATCCCTTCGAT 2499  
 QY 1077 CAACAGCAGAGACCCCGGATCCGCTACCAAGTACAAAGTCTGCCAGAGGCTGGAAGG 1136  
 Db 2500 CAACAAACAGACACCGGGATTCGATATAGTACAAAGTCTGCCAGAGGCTGGAAGG 2559  
 QY 1137 CAGCCCGAGCATCTTTCAGAGCAGATGACAAAGTCTGGAAGCTTCCGCGCCGCA 1196  
 Db 2560 CTCTCCCGCAATCTTCAGAGTATGATGACAAATCTGAGAGCTTTCGCAACAGAA 2619  
 QY 1197 CCCCAGATCTGATCTACCA-----GCCCCCTGTAAGTGGGCGAGAGCACTGGAAT 1250  
 Db 2620 CCCCACATCTGATCTATCAGTACATGATGATGATGATGATGATGATGATGATGAT 2679  
 QY 1251 CGGCGAGACCGGCGCAAGATGAGAGGCTGCGCAAGCACTGCGCTGGGGCTTCAC 1310  
 Db 2680 AGGGAGACCCGCAACAGATGAGAGGCTGCGCAAGCACTGCGCTGGGGCTTCAC 2739  
 QY 1311 CACCCCGCAAGAAAGCAACAGAGAGCCCTTCTGCTCCAT-----CAGCTGCA 1364  
 Db 2740 CACACCCGCAAGAAAGCAACAGAGAGCTCCCTTCTGCTGATGATGATGATGATGAT 2799  
 QY 1365 CCCCAGATGAGACCGGCGCAAGATGAGAGGCTGCGCAAGCACTGCGCTGGGGCTTCAC 1424  
 Db 2800 CCGTCAAAATGAGACCGGCGCAAGATGAGAGGCTGCGCAAGCACTGCGCTGGGGCTTCAC 2859  
 QY 1425 CAGCATCCAGAGCTGAGTGGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 1484  
 Db 2860 CAGCATCCAGAGCTGAGTGGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 2919  
 QY 1485 GGTGCGCAGCTGAGTGGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 1544  
 Db 2920 GGTGCGCAGCTGAGTGGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 2979  
 QY 1545 GACCGAGAGGCGGAGCTGAGTGGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 1604  
 Db 2980 AACCGAGAGGCGGAGCTGAGTGGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 3039  
 QY 1605 CGGCGTGAATGAGTGGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 1664  
 Db 3040 CGGCGTGAATGAGTGGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 3099  
 QY 1665 CAGTGGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 1724  
 Db 3100 CAGTGGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 3159  
 QY 1725 CAGATGCGCAGCGGCGCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 1784  
 Db 3160 CCGATGAGAGGCGGCGCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 3219  
 QY 1785 CCGCATGAGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 1844  
 Db 3220 CACCAACCGAGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 3279  
 QY 1845 GAGAGCTGGAGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 1904  
 Db 3280 GAGAGCTGGAGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 3339  
 QY 1905 GTTCTGGAACACCCCGCTGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 1964  
 Db 3340 GTTCTGGAACACCCCGCTGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 3399  
 QY 1965 CGGCGCGAGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 2024  
 Db 3400 CGGCGCGAGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 3459  
 QY 2025 CGGCTAGAGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 2084  
 Db 3460 CGGCTAGAGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 3519  
 QY 2085 GAGAGCTGAGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 2144  
 Db 3520 GAGAGCTGAGAGCTTACCAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 3579

QY 2145 CGTGAACCAAGCAGTACGCGCTGGGATCATCCAGGCCGACCAAGAGCGAGAG 2204  
 Db 3580 CGTGAACCAAGCAGTACGCGCTGGGATCATCCAGGCCGACCAAGAGCGAGAG 3639  
 QY 2205 CGAGCTGGTGAACCAAGTACATGAGCAGTGTATCAAGAGAGAGAGTGTACTAGCTG 2264  
 Db 3640 CGAGCTGGTGAACCAAGTACATGAGCAGTGTATCAAGAGAGAGAGTGTACTAGCTG 3699  
 QY 2265 GGTGCGCGCCCAAGAGGAGTGGGCGCAAGAGAGATGCAAGAGTGTGAGCAAGG 2324  
 Db 3700 GGTACCGCGCCCAAGAGGATGTTGGCGCAAGAGAGTGTGAGCAAGG 3759  
 QY 2325 CATCCGAAGGTGTGTTCTGAGCAGGATGCA 2357  
 Db 3760 CATCCGAAGGTGTGTTCTGAGCAGGATGCA 3792

RESULT 14  
 US-09-552-950-5  
 ; Sequence 5, Application US/09552950  
 ; Patent No. 6541248  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Oxford Biomedica (UK) Limited  
 ; TITLE OF INVENTION: Anti-Viral Vectors  
 ; FILE REFERENCE: 674524-2004  
 ; CURRENT APPLICATION NUMBER: US/09/552,950  
 ; CURRENT FILING DATE: 2000-04-20  
 ; NUMBER OF SEQ ID NOS: 22  
 ; SOFTWARE: PatentIn Ver. 2.1  
 ; SEQ ID NO 5  
 ; LENGTH: 9772  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence:DSIRNGP  
 US-09-552-950-5

Query Match 65.1%; Score 1599.4; DB 3; Length 9772;  
 Best Local Similarity 81.5%; Pred. No. 4.4e-254;  
 Matches 1934; Conservative 0; Mismatches 411; Indels 28; Gaps 6;

QY 12 CATGCGCAGGCGCAAGAGCAGG---CCACGCGCCCAACATCTGATGACGCGAGCA 68  
 Db 2193 CCGTGGTGAAGCAGTGAAGGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAG 2252  
 QY 69 CTTCAAGGCGCCCAAGCGCATATCAAGTCTTCAACTGCGGCAAGAGGCGCAATGCG 128  
 Db 2253 CTTTGGGAACCAACGCAAGATGTCAGTCTTCAACTGTGCAAGAGGCGCAACAGC 2312  
 QY 129 CCGCAACTGCGCGCGCCCGCGCAAGAGGCGTGAAGTGGCGCAAGAGGCGCAACA 188  
 Db 2313 CCGCAACTGCGCGCGCCCGCGCAAGAGGCGTGAAGTGGCGCAAGAGGCGCAACA 2372  
 QY 189 GATGAAGATGCAACGAGCGCGCAAGTCTTCCGCGAGAGCTTGGCTTCCCGCA 248  
 Db 2373 AATGAAGATGTCAGAGAGCAGGCTTA-TTTTGAAGGAAGTCTGGCTTCCCA 2431  
 QY 249 GGGCAAGCGCGCGAGTTCCCGAGAGCAACCGCGCAACAGCCCAACAGCCCGCA 308  
 Db 2432 AGGGAAGCGCGAGGATTTTCTTCAGAGCAGACAGAGCCCAACAGCCCGCAAGAG 2491  
 QY 309 GGTGAGAGTGGCGG-----CGACACCCCGCGAGAGGCGCGCGCGCAAGG 362  
 Db 2492 GCTTCAAGTGGGAGAGAGCAACACTCTCTCAAGAGAGAGAGCGGATGACAAAG 2551  
 QY 363 CA-----CCCTGAACCTTCCCGCAGATCACTGTGGAGCGCCCTGTGTAGATCA 416  
 Db 2553 AACTGATCTTCTTACCTTCCCTCAGATCACTTTTGGAGCGACCCCTGTGTAGATCA 2611  
 QY 417 GGTGGCGCGCGCAGATCAAGAGAGGCTGTGTGACACCGCGCGCGAGCAGCAGCTGTGGA 476  
 Db 2612 GATTAGGGGGGCGCTCAAGAGAGGCTCTCTGTGACACCGAGAGCAGACAGCTGTGGA 2671

QY 477 GGAGATAGCCTGCCCCGCAAGTGAAGCCCAAGATGATCGCGCATCGGCTTCAAT 536  
 DB 2672 GGAAGATGTGGTGGCAGGCGCGTGAAGCGCAAGATGATCGGCGGAATCGGCGTTTCAAT 2731  
 QY 537 CAAAGTGGCCGCAATGACCAAGATCTCTGATCGATGTGGGCAAGAGCCCATCGGCGC 596  
 DB 2732 CAAAGTGGCCGCAATGACCAAGATCTCTGATCGATGTGGGCAAGAGCCCATCGGCGC 2791  
 QY 597 CGTGTGATCGGCCCCCAAGTGAAGATCATCGGCGCAAGATGATCGGCGCAGTGG 656  
 DB 2792 CGTGTGATCGGCCCCCAAGTGAAGATCATCGGCGCAAGATGATCGGCGCAGTGG 2851  
 QY 657 CTGCACTCTGAAGCTTCCCATCATGACCCCATGAGACCGTGGCCGCTGAAGCTGAAGCCGG 716  
 DB 2852 TTGCAAGCTGAAGCTTCCCATCATGACCCCATGAGACCGTGGCCGCTGAAGCTGAAGCCGG 2911  
 QY 717 CATGACGCGCCCAAGTGAAGATGTGGGCTGACCGAGAGAAATCAAGGCGCTGAC 776  
 DB 2912 GATGACGCGCCCAAGTGAAGATGTGGGCTGACCGAGAGAAATCAAGGCGCTGAC 2971  
 QY 777 CGCATCTGCGAGAGATGAGAAAGAGGCAAGATCAAGGCGCCCGCAAGAGCC 836  
 DB 2972 GAGATTTGCAAGAGATGAGAAAGAGGCAAGATCAAGGCGCCCGCAAGAGCC 3031  
 QY 837 CTACACACCCCGCTGTTCCCATCAAGAAAGAGACGACCAAGTGGCGCAAGCTGAT 896  
 DB 3032 GTACACACCCCGCTGTTCCCATCAAGAAAGAGACGACCAAGTGGCGCAAGCTGAT 3091  
 QY 897 GGAATTCGCGAGCTGAACAGAGCGCACCGAAGCTTCTGGAGGTGACGCTGGGCAATCC 956  
 DB 3092 GGAATTCGCGAGCTGAACAGAGCGCACCGAAGCTTCTGGAGGTGACGCTGGGCAATCC 3151  
 QY 957 CACACCCCGCGCTGTAAGAAAGAGAGCGTGAAGCGTGGACGCGGCGCAAGCTGA 1016  
 DB 3152 GCAACCCCGCGAGGTGAAGAAAGAGAGCGTGAAGCGTGGACGCGGCGCAAGCTGA 3211  
 QY 1017 CTTGAGGCTGCGCTGAGACGAGACTTCCGCAAGTACCGCTTCAACATCCGAGCAT 1076  
 DB 3212 CTTGAGGCTGCGCTGAGACGAGACTTCCGCAAGTACCGCTTCAACATCCGAGCAT 3271  
 QY 1077 CAAACACGAGACCCCGGCAATCGCTACAGTACAGTGTGCTGCCAGGCTGGAAGG 1136  
 DB 3272 CAAACACGAGACCCCGGCAATCGCTACAGTACAGTGTGCTGCCAGGCTGGAAGG 3331  
 QY 1137 CAGCCCAAGCATCTTCCAGAGACAGTACCAAGATCCTGAGGCGCTTCCGCGCGCA 1196  
 DB 3332 CTTCCCGCATCTTCCAGAGTACAGTACCAAGATCCTGAGGCGCTTCCGCGCGCA 3391  
 QY 1197 CCCCAGATCGTGAATCTACCA-----GGCCCCCTGTACGTGGGCAAGCGACTGAGAT 1250  
 DB 3392 CCCCAGATCGTGAATCTACCA-----GGCCCCCTGTACGTGGGCAAGCGACTGAGAT 3451  
 QY 1251 CGGCGAGACCGCGCAAGATGAGAGCTGCGCAAGCATCTGCTGCGCTGGGCTTCAAC 1310  
 DB 3452 AGGGAGACCGCGCAAGATGAGAGCTGCGCAAGCATCTGCTGCGCTGGGCTTCAAC 3511  
 QY 1311 CACCCCGCAAGAGACCAAGAGAGAGCCCTTCTGCGCAAT-----CGAGCTGCA 1364  
 DB 3512 CACACCCCGCAAGAGACCAAGAGAGAGCCCTTCTCTGAGATGGGTTACAGACTGCA 3571  
 QY 1365 CCCCAGACAGTGAAGCTGCGAGCCCATGAGCTGCGCGAGAGAGAGAGAGAGAGAGAG 1424  
 DB 3572 CCCCAGACAGTGAAGCTGCGAGCCCATGAGCTGCGCGAGAGAGAGAGAGAGAGAGAG 3631  
 QY 1425 CGACATCCAGAGAGCTGTGGGCAAGCTGAAGTGGGCGCAAGATCTTACCCCGCATCA 1484  
 DB 3632 CGACATCCAGAGAGCTGTGGGCAAGCTGAAGTGGGCGCAAGATCTTACCCCGCATCA 3691  
 QY 1485 GGTGGCCAGCTGTGCAAGCTGCTCGGCGCGCAAGGCGCTGACCGCATGTGCGCCCT 1544  
 DB 3692 GGTGGCCAGCTGTGCAAGCTGCTCGGCGCGCAAGGCGCTGACCGCATGTGCGCCCT 3751

QY 1545 GACCGAGAGGCGAGCTGAGCTGGCCGAGAACCGCGAGATCTTCCGAGAGCCCTGCA 1604  
 DB 3752 AACCGAGAGGCGAGCTGAGCTGGCCGAGAACCGCGAGATCTTAAAGAGCCCTGCA 3811  
 QY 1605 CGGCGTGTACTAGACCCCGAGAGAGAGCTGTGGCGGAGATTCAGAGAGAGCCCA 1664  
 DB 3812 CGGCGTGTACTAGACCCCTCCAGAGAGAGCTGTGGCGGAGATTCAGAGAGAGCCCA 3871  
 QY 1665 CCAAGTGAAGCTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1724  
 DB 3872 CCAAGTGAAGCTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3931  
 QY 1725 CAAAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1784  
 DB 3932 CCAAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3991  
 QY 1785 CGCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1844  
 DB 3992 CACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4051  
 QY 1845 GAGAGCTGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1904  
 DB 4052 GGAAGCTGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4111  
 QY 1905 GTTGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1964  
 DB 4112 GTTGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4171  
 QY 1965 CGGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2024  
 DB 4172 GGGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4231  
 QY 2025 CGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2084  
 DB 4232 CGGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4291  
 QY 2085 GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2144  
 DB 4292 GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4351  
 QY 2145 CGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2204  
 DB 4352 CGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4411  
 QY 2205 CGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2264  
 DB 4412 CGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4471  
 QY 2265 GGTGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2324  
 DB 4472 GGTGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4531  
 QY 2325 CATCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2384  
 DB 4532 CATCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 4641

RESULT 15  
 US-09-872-733A-6  
 ; Sequence 6, Application US/09872733A  
 ; Patent No. 6656706  
 ; GENERAL INFORMATION:  
 ; APPLICANT: The Government of the United States of America, as  
 ; TITLE OF INVENTION: MOLECULAR CLONES WITH MUTATED HIV GAG/POL, SIV GAG AND  
 ; FILE REFERENCE: 2026-4287US1 HIV GAG/POL, SIV GAG & ENV  
 ; CURRENT APPLICATION NUMBER: US/09/872,733A  
 ; PRIOR FILING DATE: 2001-06-01  
 ; PRIOR APPLICATION NUMBER: PCT/US00/34985  
 ; PRIOR FILING DATE: 2000-12-22  
 ; PRIOR APPLICATION NUMBER: 60/1173,036  
 ; PRIOR FILING DATE: 1999-12-23  
 ; NUMBER OF SEQ ID NOS: 19

SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 6  
; LENGTH: 8366  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: DNA sequence  
; OTHER INFORMATION: of the construct pCMVgagpolBfNKan containing a CMV  
; OTHER INFORMATION: promoter, a HIV gag/pol gene and a kanamycin  
; OTHER INFORMATION: resistance gene  
US-09-872-733A-6

Query Match 62.6%; Score 1539.2; DB 3; Length 8366;  
Best Local Similarity 79.9%; Pred. No. 3.4e-244;  
Matches 1896; Conservative 0; Mismatches 448; Indels 28; Gaps 6;

14 TGGCCGAGGCCATGAGCCGACCAAGC---GCCAATCTCTGATGACGCCAGCAACT 70  
Db TGGCCGAGGCCATGAGCCGACCAAGC---GCCAATCTCTGATGACGCCAGCAACT 1916  
71 TCAGAGCCGCCAAGCGCATCATCAAGTGTCTCAACTGCGGCAAGAGAGGCCACATGCCC 130  
Db TCCGAGAACCGAGGAGAGATGCTCAAGTCTTCAATTGTGGCAAGAGAGGCCACACGCCA 1976  
131 GCAACTGCGCGCCGCCCGCAAGAGGCTGCTGGAAGTCCGCGCAAGAGGCGCACACAGA 190  
Db GGAACCTGCGCGGCCGCCCGCAAGAGGCTGTTGGAATGTGGAAGAGAGCACACAA 2036  
191 TGAAGACTGACACCGAGCGCCAGGCCAATCTTCTCCGAGAGACCTGGCTTCCCCAG 250  
Db TGAAGATTGTACTGAGAACAGGCTAA-TTTTTTAAGGAGAAATCTGGCTTCTTCAAG 2095  
251 GCAAGGCCCGCGAGTCCCGAGAGAGAACCGCGCCCAACAGGCCCGACAGCGCGAGC 310  
Db GGAAGGCCCGGAAATTTTCTTCAAGAGAACCGAGCCCAACAGAGAGAGC 2155  
311 TGCAGGTGCGCG-----CGAACCCCGCAGCGAGCGCGCGCGCGCGCAGGCA 364  
Db TTCAAGTGTGGGTAGAGCAACAACTCCCGCTCAGAGAGAGCGCATAGCAAGAA 2215  
365 -----CCTGAACTTCCCGCAGATCACTCTGTGGAGCGCCCTGTGTGAGATCAAG 418  
Db CTGTATCTTTTAACTTCCCTCAGATCACTTGTGGAGCAGACCCCTGTGCAAGTAAAG 2275  
419 TGGCGCGCCAGATCAAGAGAGCGCTGTGGAACCGCGCGCGCAGACCGTGTGAGAG 478  
Db TCGGGGGGCACTCAAGAGAGCGCTGTGATACAGAGAGAGATGATACATTTAGAG 2335  
479 AGATGAGCTGCGCGCAAGTGAAGCCCAAGATGATCGCGCGCATCGCGGCTTCATCA 538  
Db AATATGATTTCAGAGAGATGGAACCAAAATGATAGGGGGGATCGGGGCTTCATCA 2395  
539 AGGTGCGCAGTACAGACGATCTGTATGAGATCTGCGCGCAAGAGCGCATTCGACCG 598  
Db AGGTGAGGAGTACAGACGATCTGTATGAAATCTGTGACATTAAGTAAAGTAAAG 2455  
599 TGTGATCGGCGCCCGCGCGTGAACATCATCGCGCGCAACATGTGACCGCAGCTGGCT 658  
Db TATTATAGAGACTTACACTGTCAATTAATTTGAAAGAAATCTGTTGACCCAGATGGCT 2515  
659 GCAACCTGAATCTCCCATCAGCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGCA 718  
Db GCACCTTGAATCTCCCATCAGCCCATTAATGAGACGCTGCGGTGAAGCTGAAGCCGG 2575  
719 TGAACGCGCCCGCAAGGTGAAGCACTGCGCCCTGACCGAGAGAAAGATCAAGCCCTGA 778  
Db TGAACGCGCCCGCAAGGTGAAGCACTGCGCCCTGACCGAGAGAAAGATCAAGCCCTT 2635  
779 CCATCTGCGAGAGATGGAAGAGAGAGAGATCAAGAGATCGCGCCCGAGAGACCCCT 838  
Db AAATCTGTACAGAGATGGAAGAGAGAGATGAGAGATCGCGCCCTGAGAGACCCCT 2695  
839 ACAACACCCCGCTTCCCATCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 898

2696 ACAACACTTCAGACTCTCCCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2755  
QY ACTTCGGAGGCTGAACAAGCGCACCCAGAGACTTCTGGGAGGTGAGAGCTGGCATCCCC 958  
Db ACTTCAGAGGCTGAACAAGAGACTCAAGAGCTTCTGGAGGTTCAGTCTGGCATCCCC 2815  
959 ACCCGCGCGCTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1018  
Db ATCCCGCTGGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2875  
1019 TGAAGTGGCTCTGAGCGAGACTTCCGCAATGACACCGCTTTCACATCCCGACATCA 1078  
Db TCTCGGTCCTCTGAGCGAGACTTCAAGAGATGACATGCTTCAAGATCTAGCATCA 2935  
1079 ACAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1138  
Db ACAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2995  
1139 GCCCAGCATCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1198  
Db CACAGAGCATCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3055  
1199 CCGAGTGTGATCTTACA-----GGCCCCCTGTAGTGGCGAGAGAGAGAGAGAGAG 1252  
Db CAGACATGCTGATCTTACAGTACATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3115  
1253 GCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1312  
Db GCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3175  
1313 CCCCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1366  
Db CACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3235  
1367 CCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1426  
Db CTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3295  
1427 ACATCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1486  
Db ACATCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3355  
1487 TCGCGAGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1546  
Db TTAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3415  
1547 CCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1606  
Db CAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3475  
1607 GCGTGAATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1666  
Db GAGTGAATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3535  
1667 AGTGAAGCTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1726  
Db GAGTGAATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3595  
1727 AGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1786  
Db GAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3655  
1787 CCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1846  
Db CCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3715  
1847 AGACCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1906  
Db AGACATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 3775  
1907 TGTGAACACCCCGCTTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1966

Db 3776 TCGTGAACACCCCTCCCTTGTTGTAACCTGTGTATCAAGCTGGAGAAACCATCTGG 3835  
QY 1967 GCGCCGAGACCTTCTACGTGACGCGCGCCCAACCGCAGACCAAGATCGGCAAGCCG 2026  
Db 3836 GAGCAGAGACCTTCTACGTGATGGGGACCAAGGGAGACCAAGCTGGGCAAGGCA 3895  
QY 2027 GCTACGTGACCGACCGGGGCGGCAAGATCGTGAAGCTGACCGAGACCAACCAAG 2086  
Db 3896 GCTACGTGACCAACCGAGGACGACAGAAAGTGTGACCTGACTGACACCAACCAAG 3955  
QY 2087 AGACCGAGTGCAGGCGCATTCAGCTGGCCCTGACGACAGCGGACGAGGTGAACATCG 2146  
Db 3956 AGACTGAGCTGCAGGCGCATTCAGCTGCAAGACAGCGGACTGGAGTGAACATCG 4015  
QY 2147 TGACCGACAGCCAGTACGCGCTGGGATCATCCAGGCGCCAGCCGACAAAGCGAGAGCG 2206  
Db 4016 TGACAGACTCAGAGTACGACACTGGGATCATCCAGCAGACCAACCAATCCGAGTCAG 4075  
QY 2207 AGCTGTGAACCAAGATCATGAGCAGCTGATCAAGAAAGAAAGGTGTACTGAGCTGGG 2266  
Db 4076 AGCTGTGAACCAAGATCATGAGCAGCTGATCAAGAAAGAAAGGTGTACTGAGCTGGG 4135  
QY 2267 TGGCCGCGCCACAGGGGATGGCGGCAACGAGAGATCGACAGCTGTGAGCAAGGCA 2326  
Db 4136 TACCAGACACCAAGGAATTGAGGAATGAAACAAGTAAATTATGATGATGCTGGGA 4195  
QY 2327 TCGCAAGGTGTGTTCTTGGACGGCATCGAT 2358  
Db 4196 TCCGAAAGTGTGTCTTCTGACGGATCAAT 4227

Search completed: December 30, 2005, 09:18:40  
Job time : 434.635 secs



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|----|------|----------------------------------------------------------------|------|
| OY | 241  | TTCCCCCAGGGCAAGGCCCCGGGAGGTTTCCCCAGCGACGAAACCGCGCAACAAGCCCCAC  | 300  |
| Db | 241  | TTCCCCCAGGGCAAGGCCCCGGGAGGTTTCCCCAGCGACGAAACCGCGCAACAAGCCCCAC  | 300  |
| OY | 301  | AGCCGCGAGCTGCAGAGTGCGGCGGCAACAACCCCGCAGCGAGGCGCGCGCAAGCGCAG    | 360  |
| Db | 301  | AGCCGCGAGCTGCAGAGTGCGGCGGCAACAACCCCGCAGCGAGGCGCGCGCAAGCGCAG    | 360  |
| OY | 361  | GGCAACCTTGAACCTTCCCCAGATCAACCTTGCGCAGCGCCCCCTGTGAGCATTAAGGTG   | 420  |
| Db | 361  | GGCAACCTTGAACCTTCCCCAGATCAACCTTGCGCAGCGCCCCCTGTGAGCATTAAGGTG   | 420  |
| OY | 421  | GGCGGCGAGATCAAGAGAGGCGCTGTGGACAACCGCGCGCGACGACACCTGTCTGAGAGAG  | 480  |
| Db | 421  | GGCGGCGAGATCAAGAGAGGCGCTGTGGACAACCGCGCGCGACGACACCTGTCTGAGAGAG  | 480  |
| OY | 481  | ATGAGCCTGCGCCCGGCAATGGAAGCCCAAGATGATCGCGCGCATCGCGCGCTTATCAAG   | 540  |
| Db | 481  | ATGAGCCTGCGCCCGGCAATGGAAGCCCAAGATGATCGCGCGCATCGCGCGCTTATCAAG   | 540  |
| OY | 541  | GTGCGCCAGTACGACCAAGTCTTGATCGAGATCTGCGGCAAGAAAGCCATCGGACCGTG    | 600  |
| Db | 541  | GTGCGCCAGTACGACCAAGTCTTGATCGAGATCTGCGGCAAGAAAGCCATCGGACCGTG    | 600  |
| OY | 601  | CTGATCGGCCCCCAGCCCCCTGTGAATCATCGCGCGCAATGCTGATCCCACTGGGCTGC    | 660  |
| Db | 601  | CTGATCGGCCCCCAGCCCCCTGTGAATCATCGCGCGCAATGCTGATCCCACTGGGCTGC    | 660  |
| OY | 661  | ACCGTGAACCTTCCCCATCAGGCCCATCGAGACCGGTGCCGTGAAGCTGAACCCGGGATG   | 720  |
| Db | 661  | ACCGTGAACCTTCCCCATCAGGCCCATCGAGACCGGTGCCGTGAAGCTGAACCCGGGATG   | 720  |
| OY | 721  | GACGCGCCCAAGGTGAAGCAAGTGGCCCCCTGACCGAGAGAAATCAAGACCCTGACCGCC   | 780  |
| Db | 721  | GACGCGCCCAAGGTGAAGCAAGTGGCCCCCTGACCGAGAGAAATCAAGACCCTGACCGCC   | 780  |
| OY | 781  | ATCTGCGAGAGATGAGAGAGAGAGGGCAAGTCAACCAAGATCGGCCCCCGAACAACCTTAC  | 840  |
| Db | 781  | ATCTGCGAGAGATGAGAGAGAGAGGGCAAGTCAACCAAGATCGGCCCCCGAACAACCTTAC  | 840  |
| OY | 841  | AACACCCCCCGGTGTGCGCATCAAGAGAAAGGACAGACCAAGTGGCGCAACTGGTGGAC    | 900  |
| Db | 841  | AACACCCCCCGGTGTGCGCATCAAGAGAAAGGACAGACCAAGTGGCGCAACTGGTGGAC    | 900  |
| OY | 901  | TTCCGCGAGCTGAACCAAGCGCACCCAGGACTTCTGGAGAGTGCAGCTGGGATCCCCAC    | 960  |
| Db | 901  | TTCCGCGAGCTGAACCAAGCGCACCCAGGACTTCTGGAGAGTGCAGCTGGGATCCCCAC    | 960  |
| OY | 961  | CCCGCGCGGCTGAGAGAGAGAGAGCGGTGACCGTGTGAGACGTGGGCGACGCTTACTTC    | 1020 |
| Db | 961  | CCCGCGCGGCTGAGAGAGAGAGAGCGGTGACCGTGTGAGACGTGGGCGACGCTTACTTC    | 1020 |
| OY | 1021 | AGCGTGGCCCTGAGAGAGAGACTTCCCGCAAGTACACCGGCTTCAACATCCCGAGATCAAC  | 1080 |
| Db | 1021 | AGCGTGGCCCTGAGAGAGAGACTTCCCGCAAGTACACCGGCTTCAACATCCCGAGATCAAC  | 1080 |
| OY | 1081 | AACGAGACCCCGCGCATCGGCTTACCAAGTACAAAGTGTGCGCCCAAGGCTGGAAGGGCAGC | 1140 |
| Db | 1081 | AACGAGACCCCGCGCATCGGCTTACCAAGTACAAAGTGTGCGCCCAAGGCTGGAAGGGCAGC | 1140 |
| OY | 1141 | CCGACGATCTTTCAGAGGACATGACCAAGATCTTGAGGCCCTTTCGCGCCGCAACCCC     | 1200 |
| Db | 1141 | CCGACGATCTTTCAGAGGACATGACCAAGATCTTGAGGCCCTTTCGCGCCGCAACCCC     | 1200 |
| OY | 1201 | GAGATCTGATTTACCAAGGCCCTCTGTACTGTGGGACGCACTGTGAGATGTGGCGCAAGAC  | 1260 |
| Db | 1201 | GAGATCTGATTTACCAAGGCCCTCTGTACTGTGGGACGCACTGTGAGATGTGGCGCAAGAC  | 1260 |
| OY | 1261 | CGCGCGAAGATGAGAGAGCTGTGCAAGACCTGTGCGCTGGGGCTTACCAACCCCGCAC     | 1320 |
| Db | 1261 | CGCGCGAAGATGAGAGAGCTGTGCAAGACCTGTGCGCTGGGGCTTACCAACCCCGCAC     | 1320 |
| OY | 1321 | AAGAAAGCACAGAAAGAGCCCCCTTCTTCCCATCGACTGACCCCGCAAGTGAAC         | 1380 |

|    |      |                                                                    |      |
|----|------|--------------------------------------------------------------------|------|
| Db | 1321 | AAAGAGCAACCGAAGAGAGCCCCCTTCTGCGCCATCGAGCTGCACCCCGACCAAGTGGACC      | 1380 |
| Qy | 1381 | GTGCAAGCCCATCGAGCTGCCCCGAGAGAGAGCTGACCCGTGAACGACATCCAGAACCTG       | 1440 |
| Db | 1381 | GTGCAGCCCATCGAGCTGCCCGAGAGAGAGAGCTGCACCCGTGAACGACATCCAGAACCTG      | 1440 |
| Qy | 1441 | GTGGGCAAGCTGAACTGAGGCGCAGCCAAATCTAACCCCGGCATCAAAGGAGCCGACGTGTGC    | 1500 |
| Db | 1441 | GTGGGCAAGCTGAACTGAGGCGCAGCCAAATCTAACCCCGGCATCAAAGGAGCCGACGTGTGC    | 1500 |
| Qy | 1501 | AAGCTGTGCGCGCGCGCCCAAGGCCCTTACGACCGACATCTGTGCCCTTGACCCGAGAGCCGAG   | 1560 |
| Db | 1501 | AAGCTGTGCGCGCGCGCCCAAGGCCCTTACGACCGACATCTGTGCCCTTGACCCGAGAGCCGAG   | 1560 |
| Qy | 1561 | CTGGAGCTGGCCGAGAACCCGCGAGATCTTGCGCGAGCCCTGTGCACGGCGTGTACTTACGAC    | 1620 |
| Db | 1561 | CTGGAGCTGGCCGAGAACCCGCGAGATCTTGCGCGAGCCCTGTGCACGGCGTGTACTTACGAC    | 1620 |
| Qy | 1621 | CCCGACCAAGACCTGTGTGGCTCGAGATCTCAGAAGCAGAGGCCACGACCGATGTGACCTTACGAC | 1680 |
| Db | 1621 | CCCGACCAAGACCTGTGTGGCTCGAGATCTCAGAAGCAGAGGCCACGACCGATGTGACCTTACGAC | 1680 |
| Qy | 1681 | ATCTAACCAAGAGGCCCTTCAAGAACTCTGAAGCCGCGACAGTACGGCCAGATGCGCACCGCC    | 1740 |
| Db | 1681 | ATCTAACCAAGAGGCCCTTCAAGAACTCTGAAGCCGCGACAGTACGGCCAGATGCGCACCGCC    | 1740 |
| Qy | 1741 | CACACCAACGACGTGAAGACGTGACCGAGGCCGTGCGAGAAATCGCCATGTGAGAGCATC       | 1800 |
| Db | 1741 | CACACCAACGACGTGAAGACGTGACCGAGGCCGTGCGAGAAATCGCCATGTGAGAGCATC       | 1800 |
| Qy | 1801 | GTGATCTGGGGCAAGACCCCCCAAGTTCCGCTGTGCCATCCAGAAAGAGACCTGGAGAAC       | 1860 |
| Db | 1801 | GTGATCTGGGGCAAGACCCCCCAAGTTCCGCTGTGCCATCCAGAAAGAGACCTGGAGAAC       | 1860 |
| Qy | 1861 | TGGTGAACCGACCTACTGGCAGGCCACCGTGAATCCCGAGTGGAGGTTGTTGAACACCCCC      | 1920 |
| Db | 1861 | TGGTGAACCGACCTACTGGCAGGCCACCGTGAATCCCGAGTGGAGGTTGTTGAACACCCCC      | 1920 |
| Qy | 1921 | CCCCGTGTGAAGCTGTGGTATCACAGCTGAGAGAGAGGCCATCATCGCGCGCGAGACCTTC      | 1980 |
| Db | 1921 | CCCCGTGTGAAGCTGTGGTATCACAGCTGAGAGAGAGGCCATCATCGCGCGCGAGACCTTC      | 1980 |
| Qy | 1981 | TACGTGAACGGCGCGCGCCAACCGGAGAACCAAGATTCGGCAAGGCGCGCTACTGTATCCGAC    | 2040 |
| Db | 1981 | TACGTGAACGGCGCGCGCCAACCGGAGAACCAAGATTCGGCAAGGCGCGCTACTGTATCCGAC    | 2040 |
| Qy | 2041 | CGGGGCGCGGAGAGATCTGAGGCTGACCGAGCCACCAACCAAGAGAGACCGAGCTTGAC        | 2100 |
| Db | 2041 | CGGGGCGCGGAGAGATCTGAGGCTGACCGAGCCACCAACCAAGAGAGACCGAGCTTGAC        | 2100 |
| Qy | 2101 | GCCATCCAGCTGCGCCCTGACAGACAGCGGCGACGAGGTGAACATCTGTACCGACGAC         | 2160 |
| Db | 2101 | GCCATCCAGCTGCGCCCTGACAGACAGCGGCGACGAGGTGAACATCTGTACCGACGAC         | 2160 |
| Qy | 2161 | TAGCGCCTGGGCATCATTCAGGCGCCAGCCCGACAAAGACGAGACCGAGCTGTGTAACGAC      | 2220 |
| Db | 2161 | TAGCGCCTGGGCATCATTCAGGCGCCAGCCCGACAAAGACGAGACCGAGCTGTGTAACGAC      | 2220 |
| Qy | 2221 | ATCATTCGAGCAGCTGATTCAGAAAGAGAGAGGTGTACTTGAAGCTGGGTGCCGCCCAAG       | 2280 |
| Db | 2221 | ATCATTCGAGCAGCTGATTCAGAAAGAGAGAGGTGTACTTGAAGCTGGGTGCCGCCCAAG       | 2280 |
| Qy | 2281 | GGCATTCGGCGGCAACGAGCAGATCGAACGAGCTGTGAGCAAGGGCATTCGCAAGGTCTGTG     | 2340 |
| Db | 2281 | GGCATTCGGCGGCAACGAGCAGATCGAACGAGCTGTGAGCAAGGGCATTCGCAAGGTCTGTG     | 2340 |
| Qy | 2341 | TTCTCTGAACGGCATCGATGGCGGCGCATGTGTACTTACCAAGTACATGAGACGACTGTGACGTG  | 2400 |
| Db | 2341 | TTCTCTGAACGGCATCGATGGCGGCGCATGTGTACTTACCAAGTACATGAGACGACTGTGACGTG  | 2400 |
| Qy | 2401 | GGCAGCGGCGGCGCTTAGATCGATTTAAAGCTTCCCGGGGTAGCACCGGTGAATTC           | 2457 |

Db 2401 GGCAGCGGCGCCCTAGATCATTAAGCTTCCGGGGCTAGACCGGTGAATTC 2457

RESULT 2  
US-10-190-435-43  
Sequence 43, Application US/10190435  
Publication No. US20030143248A1  
GENERAL INFORMATION:  
APPLICANT: ZUR MEGEDE, Jan  
APPLICANT: BARNETT, Susan W.  
APPLICANT: LIAN, Ying  
APPLICANT: ENGELBRECHT, Susan  
APPLICANT: VAN KENSBURG, Beatrix J.  
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
FILE REFERENCE: P18133.003 / 2302-18133  
CURRENT APPLICATION NUMBER: US/10/190,435  
CURRENT FILING DATE: 2002-12-30  
NUMBER OF SEQ ID NOS: 319  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 43  
LENGTH: 2445  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: p2Pol.opt.YMMW\_C  
US-10-190-435-43

Query Match 99.4%; Score 2443.4; DB 6; Length 2445;  
Best Local Similarity 100.0%; Pred. No. 0;  
Matches 2444; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 7 GCCACCATGCGCGGCGCATAGAGCCAGCCAGCCCAACTCTGATGCAAGCGGAGC 66  
Db 1 GCCACCATGCGCGGCGCATAGAGCCAGCCAGCCCAACTCTGATGCAAGCGGAGC 60

Qy 67 AACTTCAAGGGGCCCAAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGGCCATC 126  
Db 61 AACTTCAAGGGGCCCAAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGGCCATC 120

Qy 127 GCGCGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 186  
Db 121 GCGCGCACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 180

Qy 187 CAGATGAAGGACTGCAACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 246  
Db 181 CAGATGAAGGACTGCAACGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 240

Qy 247 CAGGCAAGGCGCGCGAGTTCCCGAGCGAGCAACCGCGCGCAACCGCCCAACGCGCGC 306  
Db 241 CAGGCAAGGCGCGCGAGTTCCCGAGCGAGCAACCGCGCGCAACCGCCCAACGCGCGC 300

Qy 307 GAGCTGCAAGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 366  
Db 301 GAGCTGCAAGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 360

Qy 367 CTGAACCTTCCCGCGAGTCACTCTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 426  
Db 361 CTGAACCTTCCCGCGAGTCACTCTGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 420

Qy 427 CAGATCAAGAGGCGCTGCTGAGCAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 486  
Db 421 CAGATCAAGAGGCGCTGCTGAGCAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 480

Qy 487 CTGCGCGCGCAAGTGAAGCCCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 546  
Db 481 CTGCGCGCGCAAGTGAAGCCCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCGCGC 540

Qy 547 CAGTACGACGAGATCTGATCGAGATCTGCGGCAAGAGGCGCGCGCGCGCGCGCGCGC 606  
Db 541 CAGTACGACGAGATCTGATCGAGATCTGCGGCAAGAGGCGCGCGCGCGCGCGCGC 600

Qy 607 GCGCCCAACCCCGTGAACATCATCGCGCGCAACATGCTGACCCAGCTGGGCTGCAACCTG 666

Db 601 GCGCCCAACCCCGTGAACATCATCGCGCGCAACATCTGACCCAGCTGGGCTGCAACCTG 660

Qy 667 AACTTCCCATGAGCCCATTCGAGACCTGCGCGGTGAAGCTGAAGCCCGGCAATGAGCGG 726  
Db 661 AACTTCCCATGAGCCCATTCGAGACCTGCGCGGTGAAGCTGAAGCCCGGCAATGAGCGG 720

Qy 727 CCCAAGGTACAGAGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 786  
Db 721 CCCAAGGTACAGAGTGGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGC 780

Qy 787 GAGGATGGAAGAGAGGCGCAAGATCACCAAGATGCGCGCGCGCGCGCGCGCGCGCGC 846  
Db 781 GAGGATGGAAGAGAGGCGCAAGATCACCAAGATGCGCGCGCGCGCGCGCGCGCGCGC 840

Qy 847 CCGGTGTCGCATCAAGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 906  
Db 841 CCGGTGTCGCATCAAGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900

Qy 907 GAGCTGAACAGGCGCAACCGAGACTTCTGGAGGTGAGCTGGGCACTCCCGACCCCGCGC 966  
Db 901 GAGCTGAACAGGCGCAACCGAGACTTCTGGAGGTGAGCTGGGCACTCCCGACCCCGCGC 960

Qy 967 GGCCTGAAGAAAGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1026  
Db 961 GGCCTGAAGAAAGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1020

Qy 1027 CCGCTGAGACGAGACTTCCGCAAGTACACCGCTTCAACATCCCGAGATCAACAGAG 1086  
Db 1021 CCGCTGAGACGAGACTTCCGCAAGTACACCGCTTCAACATCCCGAGATCAACAGAG 1080

Qy 1087 ACCCGCGCATCCGCTACAGTACAGAGTCTCCCGAGGCTGGAAGGCGAGCGCGCGC 1146  
Db 1081 ACCCGCGCATCCGCTACAGTACAGAGTCTCCCGAGGCTGGAAGGCGAGCGCGCGC 1140

Qy 1147 ATCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1206  
Db 1141 ATCTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1200

Qy 1207 GTGATCAACAGGCGCGCGCTGTAAGTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1266  
Db 1201 GTGATCAACAGGCGCGCGCTGTAAGTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1260

Qy 1267 AAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1326  
Db 1261 AAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1320

Qy 1327 CACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1386  
Db 1321 CACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1380

Qy 1387 CCGATCGAGTGGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1446  
Db 1381 CCGATCGAGTGGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1440

Qy 1447 AAGCTGAACCTGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1506  
Db 1441 AAGCTGAACCTGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1500

Qy 1507 CTGCGCGCGCGCAAGGCGCTGACCGAGATGCTGCGCGCGCGCGCGCGCGCGCGCGCGCGC 1566  
Db 1501 CTGCGCGCGCGCAAGGCGCTGACCGAGATGCTGCGCGCGCGCGCGCGCGCGCGCGCGC 1560

Qy 1567 CTGCGCGAGAGACCGCGAGATCTGCGGAGCGCGGTGACCGCGGTGTAAGAGCCCGAGC 1626  
Db 1561 CTGCGCGAGAGACCGCGAGATCTGCGGAGCGCGGTGACCGCGGTGTAAGAGCCCGAGC 1620

Qy 1627 AAGGACTGCTGGTGGCGAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1686  
Db 1621 AAGGACTGCTGGTGGCGAGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1680

Qy 1687 CAGGAGCGCTTCAAGAACTGGAAGACCGGCAAGTACCGCAAGATGCGGCAACCGCCACAC 1746

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Db 1681 CAGAGCCCTTCAAGAACTGAAAGACCGGCAAGTACGCCAAGATGCGACCCGCCACACC 1740
QY 1747 AACGACGTGAAGAGCTGACCGAGGCGCGTGCAGAAAGATGCGCATGGAGAGCATTCGATC 1806
Db 1741 AACGACGTGAAGAGCTGACCGAGGCGCGTGCAGAAAGATGCGCATGGAGAGCATTCGATC 1800
QY 1807 TGGGGCAGAAACCCCAAGTTCCGCTCCCATCCAGAAAGAGACCTGGAGACCTGGTGG 1866
Db 1801 TGGGGCAGAAACCCCAAGTTCCGCTCCCATCCAGAAAGAGACCTGGAGACCTGGTGG 1860
QY 1867 ACCGACTACTGGGACGACCTGGATCCCGGAGTGGGAAGTTGTGAACCCCCCTGG 1926
Db 1861 ACCGACTACTGGGACGACCTGGATCCCGGAGTGGGAAGTTGTGAACCCCCCTGG 1920
QY 1927 GTGAAGCTGTGGTACCAAGCTGAGAAAGAGGCCATCATGGGCGCGAGACCTTCTACG 1986
Db 1921 GTGAAGCTGTGGTACCAAGCTGAGAAAGAGGCCATCATGGGCGCGAGACCTTCTACG 1980
QY 1987 GACGGGCGCGCAACCGCGAGACCAAGATCGGCAAGCGCGCTACGTGACCGACCGGGGC 2046
Db 1981 GACGGGCGCGCAACCGCGAGACCAAGATCGGCAAGCGCGCTACGTGACCGACCGGGGC 2040
QY 2047 CGGCAAGAGATGTGAGCTTACCGGACCAACCAACCAAGAGACCGAGCTGACGGCATC 2106
Db 2041 CGGCAAGAGATGTGAGCTTACCGGACCAACCAACCAAGAGACCGAGCTGACGGCATC 2100
QY 2107 CAGCTGGCCCTGACAGGACGCGGACGAGGTGAACATGTGACCGACCGCATGACGCGC 2166
Db 2101 CAGCTGGCCCTGACAGGACGCGGACGAGGTGAACATGTGACCGACCGCATGACGCGC 2160
QY 2167 CTGGGATCATCCAGGCGCCGACCAAGAGAGAGGAGGAGGAGTGTGAACAGATCATC 2226
Db 2161 CTGGGATCATCCAGGCGCCGACCAAGAGAGAGGAGGAGGAGTGTGAACAGATCATC 2220
QY 2227 GAGCAGCTGATCAAGAGAGAGAGGTGTACTGTGAGTGGGTGCCGCCCAAGGGCATC 2286
Db 2221 GAGCAGCTGATCAAGAGAGAGAGGTGTACTGTGAGTGGGTGCCGCCCAAGGGCATC 2280
QY 2287 GCGCGCAAGAGAGATGACAGAGCTGTGAGAGGAGGAGGATCCGCAAGGTGTGTTCTG 2346
Db 2281 GCGCGCAAGAGAGATGACAGAGCTGTGAGAGGAGGAGGATCCGCAAGGTGTGTTCTG 2340
QY 2347 GACGGATCATGAGCGGATCTGTGATCTACAGTATACGAGACCTGTATCGTGGCAGC 2406
Db 2341 GACGGATCATGAGCGGATCTGTGATCTACAGTATACGAGACCTGTATCGTGGCAGC 2400
QY 2407 GCGGCGCTTGAAGATGATTAAGTTCCCGGGGCTAGACACCGGT 2451
Db 2401 GCGGCGCTTGAAGATGATTAAGTTCCCGGGGCTAGACACCGGT 2445

RESULT 3
US-10-190-305A-37
; Sequence 37, Application US/10190305A
; Publication No. US20030198621A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEDEDE, Jan
; APPLICANT: BARNETT, Susan
; APPLICANT: LIAN, Ying
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
; TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: 2302-18702 / 18702.002
; CURRENT APPLICATION NUMBER: US/10/190,305A
; CURRENT FILING DATE: 2002-07-05
; NUMBER OF SEQ ID NOS: 93
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 37
; LENGTH: 2445
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:
; OTHER INFORMATION: p2pol.opt.yymm_c
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US-10-190-305A-37
Query Match 99.4%; Score 2443.4; DB 6; Length 2445;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2444; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 7 GCCACATATGCGGAGGCGCATGAGCCAGGCGCACAGGCGCAACATCTGTATGACGGCAGC 66
Db 1 GCCACATATGCGGAGGCGCATGAGCCAGGCGCACAGGCGCAACATCTGTATGACGGCAGC 60
QY 67 AACTTCAAGGGGCGCAAGGCGCATCATCAAGTCTTCAATGTGGGCAAGAGGGCGCATC 126
Db 61 AACTTCAAGGGGCGCAAGGCGCATCATCAAGTCTTCAATGTGGGCAAGAGGGCGCATC 120
QY 127 GCCCGCAACTGCGCGGCGCGCGCGCGCAAGAGAGGCTGTGAAATGTGGCGCAAGAGGGCGC 186
Db 121 GCCCGCAACTGCGCGGCGCGCGCGCGCAAGAGAGGCTGTGAAATGTGGCGCAAGAGGGCGC 180
QY 187 CAGATGAAGAGACTGCAACCGAGCGCAAGGCAACTTCTTCCGAGAGACCTTGACCTTCCGC 246
Db 181 CAGATGAAGAGACTGCAACCGAGCGCAAGGCAACTTCTTCCGAGAGACCTTGACCTTCCGC 240
QY 247 CAGGCGCAAGGCGCGGCGGATTTCCCGAGCGAGAGAAACCGGCGCAACAGCCCGCACGGCGC 306
Db 241 CAGGCGCAAGGCGCGGCGGATTTCCCGAGCGAGAGAAACCGGCGCAACAGCCCGCACGGCGC 300
QY 307 GAGCTGCAAGGTGCGGCGCGCAACACCGCGCAGAGGCGCGGCGCGAGCGCGCAAGGGCAC 366
Db 301 GAGCTGCAAGGTGCGGCGCGCAACACCGCGCAGAGGCGCGGCGCGAGCGCGCAAGGGCAC 360
QY 367 CTGAACCTTCCCGCAGATCACTCTGTGGCAGCGCGCGCTGTGAGCATCAAGTTGGCGGC 426
Db 361 CTGAACCTTCCCGCAGATCACTCTGTGGCAGCGCGCGCTGTGAGCATCAAGTTGGCGGC 420
QY 427 CAGATCAAGAGAGGCGCTGTGACACCGGCGCGCAACACCGTGTGAGAGAGATGAAC 486
Db 421 CAGATCAAGAGAGGCGCTGTGACACCGGCGCGCAACACCGTGTGAGAGAGATGAAC 480
QY 487 CTGGCGCGCAATGTGAAGGCGCAAGATGATCGGCGGATCGGCGGCTTCTCAAGGTGGCG 546
Db 481 CTGGCGCGCAATGTGAAGGCGCAAGATGATCGGCGGATCGGCGGCTTCTCAAGGTGGCG 540
QY 547 CAGTACGACAGATCTGTATGAGATCTGGCGCAAGAGAGGCGCATCGGACCGTGTGATC 606
Db 541 CAGTACGACAGATCTGTATGAGATCTGGCGCAAGAGAGGCGCATCGGACCGTGTGATC 600
QY 607 GCGCGCGACCGCGGTGAACATCATCGGCGCGCAACATGTGACCCAGTGGGTGACACCGG 666
Db 601 GCGCGCGACCGCGGTGAACATCATCGGCGCGCAACATGTGACCCAGTGGGTGACACCGG 660
QY 667 AACTTCCCATCAGCGCGCATGAGACCGTGGCCGTGAAGCTGAAGCGCGCGCATGAGCGGC 726
Db 661 AACTTCCCATCAGCGCGCATGAGACCGTGGCCGTGAAGCTGAAGCGCGCGCATGAGCGGC 720
QY 727 CCCAAGGTGAACAGTGGCGCGCTGACCGAGAGAGATCAAGGCGCTGACCGCATTTGC 786
Db 721 CCCAAGGTGAACAGTGGCGCGCTGACCGAGAGAGATCAAGGCGCTGACCGCATTTGC 780
QY 787 GAGGAGATGAGAAAGAGAGGCAAGATCACCAAGATCGGCGCGCGCAAGACCCCTACACAC 846
Db 781 GAGGAGATGAGAAAGAGAGGCAAGATCACCAAGATCGGCGCGCGCAAGACCCCTACACAC 840
QY 847 CCGGTGTGCGCATCAAGAAAGAGACAGACCAAGTGGCGCAAGTGTGTGACTTCCGC 906
Db 841 CCGGTGTGCGCATCAAGAAAGAGACAGACCAAGTGGCGCAAGTGTGTGACTTCCGC 900
QY 907 GAGCTGAACAGACGACCCAGGACTTCTGAGAGGTGACAGCTGGGACTTCCCGACCGCGC 966
Db 901 GAGCTGAACAGACGACCCAGGACTTCTGAGAGGTGACAGCTGGGACTTCCCGACCGCGC 960
QY 967 GCGCTGAAGAGAGAGAGAGCGGTGACCGTGTGAGAGTGGGCGACCGCTTACAGCGG 1026
Db 961 GCGCTGAAGAGAGAGAGAGCGGTGACCGTGTGAGAGTGGGCGACCGCTTACAGCGG 1020
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QY 1027 CCCCTGAGCAGAGACTTCCGCAAGTACACGCTTTCACCATCCCAAGCATCAACGAG 1086  
 DB 1021 CCCCTGAGCAGAGACTTCCGCAAGTACACGCTTTCACCATCCCAAGCATCAACGAG 1080  
 QY 1087 ACCCCCGGATCCGCTACCAAGTACAACTGCTGCCCCAGGGCTGGAAGGGCAGCCCCAG 1146  
 DB 1081 ACCCCCGGATCCGCTACCAAGTACAACTGCTGCCCCAGGGCTGGAAGGGCAGCCCCAG 1140  
 QY 1147 ATCTTCAGAGCAGCATGACCAAGATCTGAGACCCCTTCGCGCCCCGCAACCCCGAGATC 1206  
 DB 1141 ATCTTCAGAGCAGCATGACCAAGATCTGAGACCCCTTCGCGCCCCGCAACCCCGAGATC 1200  
 QY 1207 GTGATCTACAGGCCCCCTCTGTACGTGGGCAAGGACCTGTAGATGGCGCAGACCCGCTC 1266  
 DB 1201 GTGATCTACAGGCCCCCTCTGTACGTGGGCAAGGACCTGTAGATGGCGCAGACCCGCTC 1260  
 QY 1267 AGATCGAGAGCTGGGCAAGCCTGCTGCTGGGGCTTCAACCCCGCAAGAG 1326  
 DB 1261 AGATCGAGAGCTGGGCAAGCCTGCTGCTGGGGCTTCAACCCCGCAAGAG 1320  
 QY 1327 CACGAGAGAGGCCCCCTCTGTACGTGGGCAAGGACCTGTAGATGGCGCAGACCCGCTC 1386  
 DB 1321 CACGAGAGAGGCCCCCTCTGTACGTGGGCAAGGACCTGTAGATGGCGCAGACCCGCTC 1380  
 QY 1387 CCCATCGAGCTGCCCCGCAAGAGAGAGCTGACCGTGAAAGCATCCAAAGCTGTGGGC 1446  
 DB 1381 CCCATCGAGCTGCCCCGCAAGAGAGAGCTGACCGTGAAAGCATCCAAAGCTGTGGGC 1440  
 QY 1447 AAGCTGAATGGGCGACCGCATCTACCCCGGCAATCAAGTGGGCGAGCTGTCTCAAGCTG 1506  
 DB 1441 AAGCTGAATGGGCGACCGCATCTACCCCGGCAATCAAGTGGGCGAGCTGTCTCAAGCTG 1500  
 QY 1507 CTGCGGGGGCGCAAGGCCCCGCAAGAGAGCTGACCGTGAAAGCATCCAAAGCTGTGGGC 1566  
 DB 1501 CTGCGGGGGCGCAAGGCCCCGCAAGAGAGCTGACCGTGAAAGCATCCAAAGCTGTGGGC 1560  
 QY 1567 CTGCGCGAGAACCGCGAGATCTGCGGAGCCCGCTGACCGGGCTGTACTACAGACCCAGC 1626  
 DB 1561 CTGCGCGAGAACCGCGAGATCTGCGGAGCCCGCTGACCGGGCTGTACTACAGACCCAGC 1620  
 QY 1627 AAGGACTGTGCTGCGAGATCTCAGAGACAGGGCCACACAGTGTGACCTTACAGATTTAC 1686  
 DB 1621 AAGGACTGTGCTGCGAGATCTCAGAGACAGGGCCACACAGTGTGACCTTACAGATTTAC 1680  
 QY 1687 CAGAGACCTTCAAGAACCTGGAAGACCGGCAAGTACCGCAAGATGGCCACCGCCACACC 1746  
 DB 1681 CAGAGACCTTCAAGAACCTGGAAGACCGGCAAGTACCGCAAGATGGCCACCGCCACACC 1740  
 QY 1747 AAGCAGCTGAAGCAGTGAACGAGCGGTGCAAGAGATCGCATGAGAGCATGTGATC 1806  
 DB 1741 AAGCAGCTGAAGCAGTGAACGAGCGGTGCAAGAGATCGCATGAGAGCATGTGATC 1800  
 QY 1807 TGGGGCAAGACCCCAAGTTCCGCTGCGCTCATCAAGAGAGACCTTGGAGACCTGTGG 1866  
 DB 1801 TGGGGCAAGACCCCAAGTTCCGCTGCGCTCATCAAGAGAGACCTTGGAGACCTGTGG 1860  
 QY 1867 ACCGACTACTGAGGAGGCACTGTGATCCCGAGTGGAGATTGGAACACCCCGCCCTG 1926  
 DB 1861 ACCGACTACTGAGGAGGCACTGTGATCCCGAGTGGAGATTGGAACACCCCGCCCTG 1920  
 QY 1927 GTGAAGCTGTGTACTACAGCTGAGAGAGGACCATCATCTGGCGCGCAGACCTTCTACGTG 1986  
 DB 1921 GTGAAGCTGTGTACTACAGCTGAGAGAGGACCATCATCTGGCGCGCAGACCTTCTACGTG 1980  
 QY 1987 GACGGCGGCGCCCAACCGGAGACCAAGATCGGCAAGGCGGCTACTGTGACCGACCGGGGC 2046  
 DB 1981 GACGGCGGCGCCCAACCGGAGACCAAGATCGGCAAGGCGGCTACTGTGACCGACCGGGGC 2040  
 QY 2047 CGGAGAGAGATGTGAGCTGACCGAGACCAACGAGAGACCGAGCTGACAGGCTC 2106  
 DB 2041 CGGAGAGAGATGTGAGCTGACCGAGACCAACGAGAGACCGAGCTGACAGGCTC 2100

QY 2107 CAGCTGGCCCTGACAGACGAGCGAGAGTGAACATGCTGACCGACGACGATACGCC 2166  
 DB 2101 CAGCTGGCCCTGACAGACGAGCGAGAGTGAACATGCTGACCGACGAGCGATACGCC 2160  
 QY 2167 CTGGGATCATCAAGGCCCGGACCGGCAAGAGCGAGAGCGAGCTGTGAAACGATCATC 2226  
 DB 2161 CTGGGATCATCAAGGCCCGGACCGGCAAGAGCGAGAGCGAGCTGTGAAACGATCATC 2220  
 QY 2227 GAGCAGCTATCAAGAGAGAGAGTGTACTGAGCTGGTGGTGGCCCGCAAGGGCATC 2286  
 DB 2221 GAGCAGCTATCAAGAGAGAGAGTGTACTGAGCTGGTGGTGGCCCGCAAGGGCATC 2280  
 QY 2287 GGGCGCAAGAGAGATGCAAGAGCTGTGAGCAAGGAGCATCCGCAAGGTGCTTCTG 2346  
 DB 2281 GGGCGCAAGAGAGATGCAAGAGCTGTGAGCAAGGAGCATCCGCAAGGTGCTTCTG 2340  
 QY 2347 GACGCGATGATGCGCGCATCTGTATCTACAGTACATGACGACCTGTACGTGGCAGC 2406  
 DB 2341 GACGCGATGATGCGCGCATCTGTATCTACAGTACATGACGACCTGTACGTGGCAGC 2400  
 QY 2407 GGGCGCCTTAGATGATTAAGTTCCCGGGGCTTAGCACCGGT 2451  
 DB 2401 GGGCGCCTTAGATGATTAAGTTCCCGGGGCTTAGCACCGGT 2445

RESULT 4  
 US-10-190-435-9  
 ; Sequence 9, Application US/10190435  
 ; Publication No. US20030143248A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: ZUR MEGEDE, Jan  
 ; APPLICANT: BARNETT, Susan W.  
 ; APPLICANT: LIAN, Yiang  
 ; APPLICANT: ENGELBRECHT, Susan  
 ; APPLICANT: VAN RENSBURG, Estrelita J.  
 ; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C  
 ; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
 ; FILE REFERENCE: P10133.003 / 2302-10133  
 ; CURRENT APPLICATION NUMBER: US/10/190.435  
 ; CURRENT FILING DATE: 2002-12-30  
 ; NUMBER OF SEQ ID NOS: 319  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 9  
 ; LENGTH: 3930  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: GagCompPolmut\_C  
 US-10-190-435-9

Query Match 99.2%; Score 2436.4; DB 6; Length 3930;  
 Best Local Similarity 100.0%; Pred. No. 0;  
 Matches 2437; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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 DB 1487 TGGCGGAGGCGCATGAGCGGACCGGCGCAACATCTGATGACGCGACGAACCTTCA 1546  
 QY 74 AGGGCCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGAGGCGCACATCGCCGCA 133  
 DB 1547 AGGGCCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGAGGCGCACATCGCCGCA 1606  
 QY 134 ACTGCGGCGCCCCCGCAAGAGGCGTGTGGAAGTGGCGCAAGAGAGGCGCACAGATGA 193  
 DB 1607 ACTGCGGCGCCCCCGCAAGAGGCGTGTGGAAGTGGCGCAAGAGAGGCGCACAGATGA 1666  
 QY 194 AGGACTGACACGAGCGGCGCAAGGCAACTTCTTCCGCGAGGACCTGAGCTTCCCGAGGCA 253  
 DB 1667 AGGACTGACACGAGCGGCGCAAGGCAACTTCTTCCGCGAGGACCTTCCCGAGGCA 1726  
 QY 254 AGGCGCGGAGTTCCCGAGGAGGAGCAAGCGCGCAACAGGCCCAAGCGCGAGGCTGC 313  
 DB 1727 AGGCGCGGAGTTCCCGAGGAGGAGCAAGCGCGCAACAGGCCCAAGCGCGAGGCTGC 1786

314 AGGTGGCGGCGACAACCCCGGAGGAGCGCGCCGAGCGCCAGGGCACTTGAAT 373  
1787 AGGTGGCGGCGACAACCCCGGAGGAGCGCGCCGAGCGCCAGGGCACTTGAAT 1846  
374 TCCCCAGATCACTCTGTGGCAGCGCCCTGTGTGACATCAAGTGGCGGAGATCA 433  
1847 TCCCCAGATCACTCTGTGGCAGCGCCCTGTGTGACATCAAGTGGCGGAGATCA 1906  
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1907 AGGAGGCGCTGTGGACACGGGCGGAGAGACCGGTGTGAGAGAGATGAGCTGGCGG 1966  
494 GGAAGTGAAGGCCAAGATGATCGAGGAGATCGAGCGCTTCAATCAAGTGGCGGAGATG 553  
1967 GGAAGTGAAGGCCAAGATGATCGAGGAGATCGAGCGCTTCAATCAAGTGGCGGAGATG 2026  
554 ACCAGATCTGTATCGAGATCTGGGCGAAGAGGCCATCGGACCGTGTGATCGGCCCA 613  
2027 ACCAGATCTGTATCGAGATCTGGGCGAAGAGGCCATCGGACCGTGTGATCGGCCCA 2086  
614 CCCCCGTGAACATCTGGGCGGACAATGTCTGACCGAGCTGGGCTGACCTTGAATTTCC 673  
2087 CCCCCGTGAACATCTGGGCGGACAATGTCTGACCGAGCTGGGCTGACCTTGAATTTCC 2146  
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2567 GCATCGGCTACCAAGTACCAAGTCTGCCCAAGGCTTGAAGGCGAGCCCGAGCATTTTC 2626  
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2627 AAGAGCGCATGACCAAGATCTTGGAGCCCTTCCGGCCCGGCAACCCCGAGATGTGTATCT 2686  
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2687 ACCAGGCCCCCGTGAAGTGGGAGAGCACTTGAAGTGGGCGAGCAACCGGCGCAAGATG 2746  
1274 AGGAGCTGGCGACAACCTGTCTGGCGCTGGGCTTCAACACCCCGCAAGAAGACAACA 1333  
2747 AGGAGCTGGCGACAACCTGTCTGGCGCTGGGCTTCAACACCCCGCAAGAAGACAACA 2806  
1334 AGGAGCCCCCTTCTGTGCCCATGAGTGCACCCCGCAAGTGCACCGTGCAGCCCATGG 1393  
2807 AGGAGCCCCCTTCTGTGCCCATGAGTGCACCCCGCAAGTGCACCGTGCAGCCCATGG 2866

1394 AGTTCGCCGAGAGAGAGAGTGAACCTGTGAACGACATCCAGAACTGTGGCGAAGTGA 1453  
2867 AGTTCGCCGAGAGAGAGTGAACCTGTGAACGACATCCAGAACTGTGGCGAAGTGA 2926  
1454 ACTGGGCGGAGCCAGATCTTACCCCGGATTCAGAGTGCAGAGCTGTGGCGGCG 1513  
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1514 GCGCCAAAGCCCTGACCGGACATGTGTCCCTGACCGAGAGGCGCGAGCTGAGTGGCG 1573  
2987 GCGCCAAAGCCCTGACCGGACATGTGTCCCTGACCGAGAGGCGCGAGCTGAGTGGCG 3046  
1574 AGAACCGGAGATCTTGGCGAGCCCGTGCACGGGTGTACTACGACCCCGAGAGACC 1633  
3047 AGAACCGGAGATCTTGGCGAGCCCGTGCACGGGTGTACTACGACCCCGAGAGACC 3106  
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3167 CCTTCAAGAACTTGAAGACCGGCAAGTACGCAAGATGCGCACCGGCCACACCAAGAG 3226  
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3227 TGAAGCAGTGAACGAGGCGGTGCAGAAAGATCGCATGAGAGCATGTGATCTGGGCA 3286  
1814 AGACCCCGCAAGTTCCGCTGTGCCATTCAGAAAGAGACCTGTGGAGACCTGTGGAC 1873  
3287 AGACCCCGCAAGTTCCGCTGTGCCATTCAGAAAGAGACCTGTGGAGACCTGTGGAC 3346  
1874 ACTGGAGGCGACCTGAGATCCCGAGTGGAGATTGATGAACACCCCGCTGTGTGAAC 1933  
3347 ACTGGAGGCGACCTGAGATCCCGAGTGGAGATTGATGAACACCCCGCTGTGTGAAC 3406  
1934 TGTGTGATCCAGCTGAGAGAGAGCCCATCATCGGCGCGAGACCTTCTACGTGACGCG 1993  
3407 TGTGTGATCCAGCTGAGAGAGAGCCCATCATCGGCGCGAGACCTTCTACGTGACGCG 3466  
1994 CCGCCAACTGGGAGACCAAGATCTGGCAAGCCCGCTTACCTGACCGGCGCGGCGACA 2053  
3467 CCGCCAACTGGGAGACCAAGATCTGGCAAGCCCGCTTACCTGACCGGCGCGGCGACA 3526  
2054 AGATCGTGAAGCTGACCGGACCAACCAACAGAGACCGAGCTGACGAGCATTCAGCTGG 2113  
3527 AGATCGTGAAGCTGACCGGACCAACCAACAGAGACCGAGCTGACGAGCATTCAGCTGG 3586  
2114 CCTTGAAGAGACGCGGACGAGGTGAACATGTGACCGACAGCGATACGCTTGGGCA 2173  
3587 CCTTGAAGAGACGCGGACGAGGTGAACATGTGACCGACAGCGATACGCTTGGGCA 3646  
2174 TCATTCAGGCGCCAGCCCGCAAGAGCGAGAGGAGCTGTGAAACCAAGATCTGAGACAC 2233  
3647 TCATTCAGGCGCCAGCCCGCAAGAGCGAGAGGAGCTGTGAAACCAAGATCTGAGACAC 3706  
2234 TGATCAAGAGAGAGAGTGTACTTGAAGTGGGTGCGCCCGCAAGAGGATCGGCGGCA 2293  
3707 TGATCAAGAGAGAGAGTGTACTTGAAGTGGGTGCGCCCGCAAGAGGATCGGCGGCA 3766  
2294 ACGAGCAGATCGACCAAGCTGTGAGCAAGAGGATCCGCAAGGTGTCTTGAACGGA 2353  
3767 ACGAGCAGATCGACCAAGCTGTGAGCAAGAGGATCCGCAAGGTGTCTTGAACGGA 3826  
2354 TCGATGGCGGATCTGTGATCTACAGTACATGAGCACTGTACGCTGGGCGAGGCGGCC 2413  
3827 TCGATGGCGGATCTGTGATCTACAGTACATGAGCACTGTACGCTGGGCGAGGCGGCC 3886  
2414 CTAAGATGATTTAAAGCTTCCCGGCGCTAGCACCGGT 2451  
3887 CTAAGATGATTTAAAGCTTCCCGGCGCTAGCACCGGT 3924





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QY 1735 ACCGCCACCAACGACGCTGAGACGCTGACCGAGCCGTGCAGAGATCCCATGAG 1794
DB 1741 ACCGCCACCAACGACGCTGAGACGCTGACCGAGCCGTGCAGAGATCCCATGAG 1800
QY 1795 AGCATCTGATCTGGGGCAAGACCCCAAGTTCCGCTTCCATCCAGAGAGACCTGG 1854
DB 1801 ACCATCTGATCTGGGGCAAGACCCCAAGTTCCGCTTCCATCCAGAGAGACCTGG 1860
QY 1855 GAGACCTGTGGACGCACTACGAGGAGGCACTGTGATCCCGAGTGGAGTTCCGTAAC 1914
DB 1861 GAGACCTGTGGACGCACTACGAGGAGGCACTGTGATCCCGAGTGGAGTTCCGTAAC 1920
QY 1915 ACCCCCCCTGTGTGAAGCTGTGTGTAACAGCTGAGAGAGAGCCCATCTGAGCCGAG 1974
DB 1921 ACCCCCCCTGTGTGAAGCTGTGTGTAACAGCTGAGAGAGAGCCCATCTGAGCCGAG 1980
QY 1975 ACCTTTCTAGTGAACGGCCCGCCCAACCGGAGACCAAGATCGGCAAGGCCCTGACGTG 2034
DB 1981 ACCTTTCTAGTGAACGGCCCGCCCAACCGGAGACCAAGATCGGCAAGGCCCTGACGTG 2040
QY 2035 ACCGACCGGGGGCGGAGAGATGATGAGCTGAGACCGGAGACCAACGAGAGAGCCGAG 2094
DB 2041 ACCGACCGGGGGCGGAGAGATGATGAGCTGAGACCGGAGACCAACGAGAGAGCCGAG 2100
QY 2095 CTGACAGGCAATCCAGCTGAGCCCTGACAGACAGCGGAGCGAGGTGAACATCTGTGACGAC 2154
DB 2101 CTGACAGGCAATCCAGCTGAGCCCTGACAGACAGCGGAGCGAGGTGAACATCTGTGACGAC 2160
QY 2155 AGCCAGTACGGCTCTGGGATCATCCAGGCCCAAGCCGACCAAGCCAGAGCCAGCTGTG 2214
DB 2161 AGCCAGTACGGCTCTGGGATCATCCAGGCCCAAGCCGACCAAGCCAGAGCCAGCTGTG 2220
QY 2215 AACCAATCATCGAGGAGCTGATCAAGAGAGAGAGTGTACTGTGAGCTGGGTGCGCCGAC 2274
DB 2221 AACCAATCATCGAGGAGCTGATCAAGAGAGAGAGTGTACTGTGAGCTGGGTGCGCCGAC 2280
QY 2275 CACAAAGGAGATCGGCGGCAACGAGATCGAACAGCTGTGTGAGCAAGGAGCATCCGCAAG 2334
DB 2281 CACAAAGGAGATCGGCGGCAACGAGATCGAACAGCTGTGTGAGCAAGGAGCATCCGCAAG 2340
QY 2335 GTGCTTCTCTGAGCGGATCGATGCGCGGATGTGTATCTACAGTATCATGACGACCTG 2394
DB 2341 GTGCTTCTCTGAGCGGATCGATGCGCGGATGTGTATCTACAGTATCATGACGACCTG 2400
QY 2395 TACGTGGGAGCGCGGCTTAGATCGATTAAAGCTTCCGGGGCTAGACCGGTGAA 2454
DB 2401 TACGTGGGAGCGCGGCTTAGATCGATTAAAGCTTCCGGGGCTAGACCGGTGAA 2460
QY 2455 TTC 2457
DB 2461 TTC 2463

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RESULT 6
US-10-190-435-10
; Sequence 10, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Batrelika J.
; TITLE OF INVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 10
; LENGTH: 3930
; TYPE: DNA

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; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: GagComp1PolmutatC_C
US-10-190-435-10

Query Match 99.1%; Score 2434.8; DB 6; Length 3930;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 2436; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 14 TGGCCGAGGCGCATGAGGCGCAGGCGCACGAGCGCAACATCTGTATGACGAGCAGCAACTTGA 73
DB 1487 TGGCCGAGGCGCATGAGGCGCAGGCGCACGAGCGCAACATCTGTATGACGAGCAGCAACTTGA 1546
QY 74 AGGCGCCCAAGGCGCATCATCAAGTCTTCAATGCGGCAAGAGAGGCGCATGCGCCGCA 133
DB 1547 AGGCGCCCAAGGCGCATCATCAAGTCTTCAATGCGGCAAGAGAGGCGCATGCGCCGCA 1606
QY 134 ACTGCCGCGCGCCCGCGCAAGAAAGGCTGTGTGAAGTGTGCGGCAAGAGGCGCACAGATGA 193
DB 1607 ACTGCCGCGCGCCCGCGCAAGAAAGGCTGTGTGAAGTGTGCGGCAAGAGGCGCACAGATGA 1666
QY 194 AGGACTGACCGAGGCGCGCAGGCGCAACTTCTTCCGAGAGGACCTGAGCCTTCCCGCAGAGGA 253
DB 1667 AGGACTGACCGAGGCGCGCAGGCGCAACTTCTTCCGAGAGGACCTGAGCCTTCCCGCAGAGGA 1726
QY 254 AGGCGCGCAGATTCTCCAGCGAGCAAGAACCGGCGCAACAGCCCGCACGCGGAGCTGC 313
DB 1727 AGGCGCGCAGATTCTCCAGCGAGCAAGAACCGGCGCAACAGCCCGCACGCGGAGCTGC 1786
QY 314 AGGTGCGCGCGGACCAACCCCGCGAGCGAGCGCGGCGCGAGGCGCGCAGGCGCACTTGAAC 373
DB 1787 AGGTGCGCGCGGACCAACCCCGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGG 1846
QY 374 TCCCCAGATCAACCTGTGGAGCGCGCCCTGTGTGATCAAGTGTGGCGGCGCAGATGA 433
DB 1847 TCCCCAGATCAACCTGTGGAGCGCGCCCTGTGTGATCAAGTGTGGCGGCGCAGATGA 1906
QY 434 AGGAGCGCTCTGTGACACCGGCGCGGAGCAGACCGTGTGTGAGAGATGAGCTTGC 493
DB 1907 AGGAGCGCTCTGTGACACCGGCGCGGAGCAGACCGTGTGTGAGAGATGAGCTTGC 1966
QY 494 GCAATGGAAGCCCAAGATGATTCGGCGGATTCGGCGGCTTTCATCAAGTGTGGCGCACTAG 553
DB 1967 GCAATGGAAGCCCAAGATGATTCGGCGGATTCGGCGGCTTTCATCAAGTGTGGCGCACTAG 2026
QY 554 ACCAGATCTGATTCGAGATCTGCGGAGAGAGGCGCATCGGCAACCGTGTGATCGGCGCA 613
DB 2027 ACCAGATCTGATTCGAGATCTGCGGAGAGAGGCGCATCGGCAACCGTGTGATCGGCGCA 2086
QY 614 CCCCGGTGAACATCATTCGCGCGGCAACATGCTGACCCAGCTGGGCTTGACCTTGA 673
DB 2087 CCCCGGTGAACATCATTCGCGCGGCAACATGCTGACCCAGCTGGGCTTGACCTTGA 2146
QY 674 CCATCAGCCCCATTCGAGATCCGTGCCGTGAACTGAAAGCCCGGATGAGACGCGCCCAAG 733
DB 2147 CCATCAGCCCCATTCGAGATCCGTGCCGTGAAAGCCCGGATGAGACGCGCCCAAG 2206
QY 734 TGAAGCAGTGGCGCCCTGACCGAGAGAGATCAAGGCGCTGACCGGCGCATCTGTGAGAGGA 793
DB 2207 TGAAGCAGTGGCGCCCTGACCGAGAGAGATCAAGGCGCTGACCGGCGCATCTGTGAGAGGA 2266
QY 794 TGAAGAGAGAGGAGCAAGATCAACCAAGATCGGCGCCGAGAACCCCTTCAACACCCCGTGT 853
DB 2267 TGAAGAGAGAGGAGCAAGATCAACCAAGATCGGCGCCGAGAACCCCTTCAACACCCCGTGT 2326
QY 854 TGGCCATCAAGAGAGAGAGAGAGAGCAAGATGCGGCAAGCTGTGTGACTTCCGAGACTGA 913
DB 2327 TGGCCATCAAG 2386
QY 914 ACAAGCGACCCAGAGACTTCTGGAGAGTGAAGTGTGAGATTCGCCACCCCGCGGCGCTGA 973
DB 2387 ACAAGCGACCCAGAGACTTCTGGAGAGTGAAGTGTGAGATTCGCCACCCCGCGGCGCTGA 2446

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QY 974 AGAAGAAAGAGCGTGAACCGTGTCTGAGAGTGGGCGACCGCTTACTTCAAGCGTCCCTGG 1033
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Db 2447 AGAAGAAAGAGCGTGAACCGTGTCTGAGAGTGGGCGACCGCTTACTTCAAGCGTCCCTGG 2506
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|
QY 1034 AGGAGGACTTCCGCAAGTACACCGCGCTTCAACCATTCGCCAGCATCAACAAGAGACCCCGG 1093
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|
|
Db 2507 AGGAGGACTTCCGCAAGTACACCGCGCTTCAACCATTCGCCAGCATCAACAAGAGACCCCGG 2566
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|
|
QY 1094 GCATCCGCTACCAAGTACAACTGTCTGCCCGAGGCTGGAAGGCGAGCCCGCAGCATTTTC 1153
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|
Db 2567 GCATCCGCTACCAAGTACAACTGTCTGCCCGAGGCTGGAAGGCGAGCCCGCAGCATTTTC 2626
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|
|
QY 1154 AGAGCAGCATGACCAAGATCTTGAAGCCCTTCCGCGCCGCAACCCCGAGATGTGATCT 1213
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|
|
Db 2627 AGAGCAGCATGACCAAGATCTTGAAGCCCTTCCGCGCCGCAACCCCGAGATGTGATCT 2686
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|
|
QY 1214 ACCAGGCCCCCTGTAGTGGGAGGAGCCTGAGATCGGCGCAGCACCGCGCCAAATCG 1273
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|
Db 2687 ACCAGGCCCCCTGTAGTGGGAGGAGCCTGAGATCGGCGCAGCACCGCGCCAAATCG 2746
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|
|
QY 1274 AGGAGCTGCGCAGACACTCTGCTCGCTGGGCTTCAACACCCCGACCAAGAGCACCGA 1333
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|
|
Db 2747 AGGAGCTGCGCAGACACTCTGCTCGCTGGGCTTCAACACCCCGACCAAGAGCACCGA 2806
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|
QY 1334 AGGAGCCCCCTTCTGTCCCATGAGTGCACCCCGACCAAGTGAACCTGACGCCATCG 1393
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|
|
Db 2807 AGGAGCCCCCTTCTGTCCCATGAGTGCACCCCGACCAAGTGAACCTGACGCCATCG 2866
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|
QY 1394 AGTGTCCCGAGAGAGAGAGTGCACCGTGAACCAATCCAGAGCTGTGGGCGAAGCTGA 1453
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|
Db 2867 AGTGTCCCGAGAGAGAGAGTGCACCGTGAACCAATCCAGAGCTGTGGGCGAAGCTGA 2926
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|
|
QY 1454 ACTGGGCGCAGCAGATCTACCCCGGCATCAAGGTGCGCCAGCTGTGCAAGCTGTGCGG 1513
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|
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QY 1514 GCGCCAAAGGCTCTGACCGACATGTGTGCTGACCGAGAGGCGGAGCTGGAAGTGGCGG 1573
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|
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|
QY 1574 AGAAGCCGAGATCTCTGCGGAGCGCGGTGACCGCGCGTGTACTAGACCCCGACGAAGACC 1633
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Db 3047 AGAAGCCGAGATCTCTGCGGAGCGCGGTGACCGCGCGTGTACTAGACCCCGACGAAGACC 3106
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QY 1634 TGGTGGCGGAGATCCAGAGAGAGGCGCACGACAGTGAACCTTACAGATCTACGAGAGC 1693
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|
QY 1694 CTTTCAAGAACTTGAGAACCGGCAAGTACCGCAAGATGCGCACCGCCACACCAACGAG 1753
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|
Db 3167 CTTTCAAGAACTTGAGAACCGGCAAGTACCGCAAGATGCGCACCGCCACACCAACGAG 3226
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QY 1754 TGAAGAGCTGACCGAGGCGCTGCAAGAGATCGCCATGAGAGAGCATGTGATCTGGGGCA 1813
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|
Db 3227 TGAAGAGCTGACCGAGGCGCTGCAAGAGATCGCCATGAGAGAGCATGTGATCTGGGGCA 3286
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|
QY 1814 AGACCCCAAGTTCCGCTGCGCATTCAGAGAGAGACTTGGGAGACCTGTGGAGCCGACT 1873
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|
|
Db 3287 AGACCCCAAGTTCCGCTGCGCATTCAGAGAGAGACTTGGGAGACCTGTGGAGCCGACT 3346
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|
QY 1874 ACTGGCAGGCGCCTGTGATCCCGAGTGGAGTTCTGTAACACCCCGCTGTGTAAGC 1933
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|
|
Db 3347 ACTGGCAGGCGCCTGTGATCCCGAGTGGAGTTCTGTAACACCCCGCTGTGTAAGC 3406
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|
|
QY 1934 TGTGTATCAAGCTGAGAGAGAGCCCATCATCGGCGCCGAGACCTTCTACGTGACGGCG 1993
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|
|
Db 3407 TGTGTATCAAGCTGAGAGAGAGCCCATCATCGGCGCCGAGACCTTCTACGTGACGGCG 3466
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|
QY 1994 CCGCAACCGGAGAGCAAGATCTGGCAAGCGCGGCTACGTGACCGACCGGGGCGGCGAGA 2053
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|
|
Db 3467 CCGCAACCGGAGAGCAAGATCTGGCAAGCGCGGCTACGTGACCGACCGGGGCGGCGAGA 3526
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QY 2054 AGATCTGTAGGCTGACCGAGACCAACCAAGAGACCGAGCTGAGGCATCTCAAGCTGG 2113
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Db 3527 AGATGTGAGCTGACCGAGACCAACCAAGAGCCGAGCTGACAGCCATCAAGCTGG 3586
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QY 2114 CCCTGAGAGACAGCGGACGAGGTGAAATATGTGACCCGACAGCCGTAACGCCCTTGGGCA 2173
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|
Db 3587 CCCTGAGAGACAGCGGACGAGGTGAAATATGTGACCCGACAGCCGTAACGCCCTTGGGCA 3646
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|
|
QY 2174 TCATCAGGCGCAGCGCCGACCAAGAGGAGAGGAGAGTGTGAAACAGATCATGAGCAGC 2233
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|
|
Db 3647 TCATCAGGCGCAGCGCCGACCAAGAGGAGAGGAGAGTGTGAAACAGATCATGAGCAGC 3706
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|
|
QY 2234 TGATCAAGAGAGAGAGTGTACTTGAAGTGGGTGTCGCCCAAGAGGATCGCGGCA 2293
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|
|
Db 3707 TGATCAAGAGAGAGAGTGTACTTGAAGTGGGTGTCGCCCAAGAGGATCGCGGCA 3766
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|
|
QY 2294 ACAGCAGATCGACAAAGTGTGTAGCAAGGCGCATCCGCAAGGTGCTGTTCTTGAACGGCA 2353
|
|
|
Db 3767 ACAGCAGATCGACAAAGTGTGTAGCAAGGCGCATCCGCAAGGTGCTGTTCTTGAACGGCA 3826
|
|
|
QY 2354 TCGATGGCGGCATCGTATCTACAGTACATGAGACCTGTAGTGGGAGGCGGCGCC 2413
|
|
|
Db 3827 TCGATGGCGGCATCGTATCTACAGTACATGAGACCTGTAGTGGGAGGCGGCGCC 3886
|
|
|
QY 2414 CTAGATCATTAATAAGCTTCCCGGGCTAGCACCGGT 2451
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Db 3887 CTAGATCATTAATAAGCTTCCCGGGCTAGCACCGGT 3924
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RESULT 7
US-10-190-435-11
; Sequence 11, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan W.
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Retelita J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USBS THEREOF
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT APPLICATION NUMBER: US/10/190,435
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 11
; LENGTH: 3930
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: GagCompPolmultina_C
US-10-190-435-11

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Query Match 99.1%; Score 2434.8; DB 6; Length 3930;
Best Local Similarity 99.9%; Pred. No. 0;
Matches 2436; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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QY 14 TGGCCGAGGCGCATGAGCCAGGCGCACGAGCGCAACATCTGTAGTCAGCGCAGCACTTCA 73
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Db 1487 TGGCCGAGGCGCATGAGCCAGGCGCACGAGCGCAACATCTGTAGTCAGCGCAGCACTTCA 1546
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|
QY 74 AGGCGCCCAAGCGCATATCAAGTGTCTTCAACTGCGGCAAGAGAGGCGCAATGCCCGCA 133
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|
|
Db 1547 AGGCGCCCAAGCGCATATCAAGTGTCTTCAACTGCGGCAAGAGAGGCGCAATGCCCGCA 1606
|
|
|
QY 134 ACTGCGCGCGCCCGGCAAGAGAGGCTGTGGAAGTGTGCGCAAGAGAGGCGCACAGATGA 193
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|
|
Db 1607 ACTGCGCGCGCCCGGCAAGAGAGGCTGTGGAAGTGTGCGCAAGAGAGGCGCACAGATGA 1666
|
|
|
QY 194 AGGACTGACCGAGAGCGCCAGGCGCAACTTCTTCCGCGAGAGACTTGGCTTCCCGAGGGCA 253
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|
|
Db 1667 AGGACTGACCGAGAGCGCCAGGCGCAACTTCTTCCGCGAGAGACTTGGCTTCCCGAGGGCA 1726
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|    |      |                                                                   |      |
|----|------|-------------------------------------------------------------------|------|
| QY | 254  | GGGCCCCGAGATTCCCCCGAGGAGAGAAACGGGGCAACAGGCCCAACAGGCCGAGGAGTTGC    | 313  |
| Db | 1727 | AGGCCCCGAGTTCCCCCGAGGAGAGAAACGGGGCAACAGGCCCAACAGGCCGAGGAGTTGC     | 1786 |
| QY | 314  | AGGTGCGGGGAGCAACCCCGCAGCGAGGCGGGCGCGAGCGCCAGGAGCACTTGAAT          | 373  |
| Db | 1787 | AGGTGCGGGGAGCAACCCCGCAGCGAGGCGGGCGCGAGCGCCAGGAGCACTTGAAT          | 1846 |
| QY | 374  | TCCCCCAGATCACTCTGTGGCAGGGCCCCCTGTGTAGCATTAAGTGGGGGCGCATCA         | 433  |
| Db | 1847 | TCCCCCAGATCACTCTGTGGCAGGGCCCCCTGTGTAGCATTAAGTGGGGGCGCATCA         | 1906 |
| QY | 434  | AGGAGGCCCTGTGGACAACGGGGCGGACACACCGTGTGAGAGAGATGAGCTGGCCG          | 493  |
| Db | 1907 | AGGAGGCCCTGTGTGGACAACGGGGCGGACACACCGTGTGAGAGAGATGAGCTGGCCG        | 1966 |
| QY | 494  | GCAATGTGAAGGCCCAAGATGATTCGGCGGCGATTCGGCGGCTTTCATCAAGGTGGCGCAGTACG | 553  |
| Db | 1967 | GCAATGTGAAGGCCCAAGATGATTCGGCGGCGATTCGGCGGCTTTCATCAAGGTGGCGCAGTACG | 2026 |
| QY | 554  | ACCAGATCCTGATTCGAGATCTTGCGGCAAGAAAGGCCATCGGACCGGTGTATTCGGCCCCA    | 613  |
| Db | 2027 | ACCAGATCCTGATTCGAGATCTTGCGGCAAGAAAGGCCATCGGACCGGTGTATTCGGCCCCA    | 2086 |
| QY | 614  | CCCCCGTGAATCATTCGGCGGGCAACATGCTGACCCCACTGGGCTGCAACCTTGAACTTCC     | 673  |
| Db | 2087 | CCCCCGTGAATCATTCGGCGGGCAACATGCTGACCCCACTGGGCTGCAACCTTGAACTTCC     | 2146 |
| QY | 674  | CCATCAGCCCCCATCGAGACCGGTGCCGTGAAGCTGAACCCGGCATGGAACGGCCCCCAAG     | 733  |
| Db | 2147 | CCATCAGCCCCCATCGAGACCGGTGCCGTGAAGCTGAACCCGGCATGGAACGGCCCCCAAG     | 2206 |
| QY | 734  | TGAACAGTGGGCCCTTGAACCGAGAGAAAGATCAAGGCCCTTGAACCGCATCTTGCAGAGAGA   | 793  |
| Db | 2207 | TGAACAGTGGGCCCTTGAACCGAGAGAAAGATCAAGGCCCTTGAACCGCATCTTGCAGAGAGA   | 2266 |
| QY | 794  | TGGAGAAAGAGGGGCAAGATCAACCAAGATTCGGGCCCGGAAACCCCTTCAACAACCCCGGT    | 853  |
| Db | 2267 | TGGAGAAAGAGGGGCAAGATCAACCAAGATTCGGGCCCGGAAACCCCTTCAACAACCCCGGT    | 2326 |
| QY | 854  | TGCGCATCAAGAAAGAGGACAGCAACCAAGTGGCGCAACTGTGTGACTTTCGCGAGCTGA      | 913  |
| Db | 2327 | TGCGCATCAAGAAAGAGGACAGCAACCAAGTGGCGCAACTGTGTGACTTTCGCGAGCTGA      | 2386 |
| QY | 914  | ACAAACGCAACCCAGGACTTCTTGGAGGTGCAGCTGGAGCATCCCAACCCGCGCGCTGA       | 973  |
| Db | 2387 | ACAAACGCAACCCAGGACTTCTTGGAGGTGCAGCTGGAGCATCCCAACCCGCGCGCTGA       | 2446 |
| QY | 974  | AGAAAGAAAGAGCGTGACCGTGTCTGTGACGTGGGCGACAGCTCTTCAAGGTGCCCTGG       | 1033 |
| Db | 2447 | AGAAAGAAAGAGCGTGACCGTGTCTGTGACGTGGGCGACAGCTCTTCAAGGTGCCCTGG       | 2506 |
| QY | 1034 | ACGAGGACTTTCGCAAGTACACGCGCTTCAACCATCCCAAGCATCAACAAGAGACCCCG       | 1093 |
| Db | 2507 | ACGAGGACTTTCGCAAGTACACGCGCTTCAACCATCCCAAGCATCAACAAGAGACCCCG       | 2566 |
| QY | 1094 | GCATCCGCTACCAAGTACACGTCCTGCCCAAGGCGTGGAAAGGACGCCCAAGACTTTC        | 1153 |
| Db | 2567 | GCATCCGCTACCAAGTACACGTCCTGCCCAAGGCGTGGAAAGGACGCCCAAGACTTTC        | 2626 |
| QY | 1154 | AGAGCAGCATGACCAAGATCTTGAAGCCCTTTCGGCGCCGCAACCCGAGATCTGTATCT       | 1213 |
| Db | 2627 | AGAGCAGCATGACCAAGATCTTGAAGCCCTTTCGGCGCCGCAACCCGAGATCTGTATCT       | 2686 |
| QY | 1214 | ACCAAGCCCCCTGTACGTGGGCAACGACTGGGAGATGGGGCAGACCGGCGCAAGATCG        | 1273 |
| Db | 2687 | ACCAAGCCCCCTGTACGTGGGCAACGACTGGGAGATGGGGCAGACCGGCGCAAGATCG        | 2746 |
| QY | 1274 | AGGAGCTGGCAAGCACTGTGCGCTGGGGCTTTCACACCCCGCAACAAGACCAACGACA        | 1333 |
| Db | 2747 | AGGAGCTGGCAAGCACTGTGCGCTGGGGCTTTCACACCCCGCAACAAGACCAACGACA        | 2806 |
| QY | 1334 | AGGAGCCCCCTTCTGTGCCATGTGACTGCACCCCGCAAGTGAACGCTGACGCCATTCG        | 1393 |

|    |      |                                                                 |      |
|----|------|-----------------------------------------------------------------|------|
| Db | 2807 | AGAGAGCCCCCTTCTCTGCTCCATCGAAGCTGACCCCGCAAGTGGACCGTGAGCCATCTCG   | 2866 |
| QY | 1394 | AGTGTCCCGAGAGAGAGAGCTGGAACCGTGAAACGACATCCAGAGCTGTGTGGCAAGCTGA   | 1453 |
| Db | 2867 | AGTGTCCCGAGAGAGAGAGAGCTGGAACCGTGAAACGACATCCAGAGCTGTGTGGCAAGCTGA | 2926 |
| QY | 1454 | ACTGTGGCAGCGACATCTACCCCGGGCATTCAAGGAGGCGCGACGTGTGCAAGCTGTGCGCG  | 1513 |
| QY | 2927 | ACTGTGGCAGCGACATCTACCCCGGGCATTCAAGGAGGCGCGACGTGTGCAAGCTGTGCGCG  | 2986 |
| Db | 1514 | GGCGCAAGAGCCCTTGACCGACATCGTGCCTCTGACCGAGAGAGCCGAGCTGAGAGCTGCGCG | 1573 |
| Db | 2967 | GGCGCAAGAGCCCTTGACCGACATCGTGCCTCTGACCGAGAGAGCCGAGCTGAGAGCTGCGCG | 3046 |
| QY | 1574 | AGAAACCGAGATCTGTGGCGAGGCCCGGTGCACGGCGTGTACTACAGATCTACCAAGAGC    | 1633 |
| QY | 3047 | AGAAACCGAGATCTGTGGCGAGGCCCGGTGCACGGCGTGTACTACAGATCTACCAAGAGC    | 3106 |
| QY | 1634 | TGTGTGGCAGATCTCCAGAGAGAGGCCACCAACAGTGTGACCTTACAGATCTACCAAGAGC   | 1693 |
| Db | 3107 | TGTGTGGCAGATCTCCAGAGAGAGGCCACCAACAGTGTGACCTTACAGATCTACCAAGAGC   | 3166 |
| QY | 1694 | CCTTCAAGAACTTGAAAGACCGGCAAGTACGCGCAAGATGTGCGACCGCCACCAACGACG    | 1753 |
| Db | 3167 | CCTTCAAGAACTTGAAAGAGCGGCAAGTACGCGCAAGATGTGCGACCGCCACCAACGACG    | 3226 |
| QY | 1754 | TGAAGCAGCTGACCGAGGCGGTGCAAGAAAGATCGCCATGTAGAGCATGTGTATCTGGGCA   | 1813 |
| Db | 3227 | TGAAGCAGCTGACCGAGGCGGTGCAAGAAAGATCGCCATGTAGAGCATGTGTATCTGGGCA   | 3286 |
| QY | 1814 | AGATCCCCCAATTTCCGCTCTGCGCCATCCAGAGAGAGACCTGTGGAAACCTGTGTGACGACT | 1873 |
| Db | 3287 | AGATCCCCCAATTTCCGCTCTGCGCCATCCAGAGAGAGACCTGTGGAAACCTGTGTGACGACT | 3346 |
| QY | 1874 | ACTGGCAGAGCCACCTGGATCCCGAGTGTGGAGTTCTGTAAACACCCGCCCTGTGTGAAGC   | 1933 |
| Db | 3347 | ACTGGCAGAGCCACCTGGATCCCGAGTGTGGAGTTCTGTAAACACCCGCCCTGTGTGAAGC   | 3406 |
| QY | 1934 | TGTGTATCAGACTGTGAGAGAGAGGCCCATCATGTGGCGCCGAGACCTTCTACGTGACGCGG  | 1993 |
| Db | 3407 | TGTGTATCAGACTGTGAGAGAGAGGCCCATCATGTGGCGCCGAGACCTTCTACGTGACGCGG  | 3466 |
| QY | 1994 | CCGCCAACCGCGAGACCAAGATCGGCAAGAGCGCGCTACGTGACCGACCGGGCCGGCAGA    | 2053 |
| Db | 3467 | CCGCCAACCGCGAGACCAAGATCGGCAAGAGCGCGCTACGTGACCGACCGGGCCGGCAGA    | 3526 |
| QY | 2054 | AGATGTAGGCTGACCGAGACCAACCAACGAAAGACCGAGCTGACGGCCATCCAGCTGG      | 2113 |
| Db | 3527 | AGATGTAGGCTGACCGAGACCAACCAACGAAAGACCGAGCTGACGGCCATCCAGCTGG      | 3586 |
| QY | 2114 | CCCTTGACAGACAGCGGCGACGAGGTGAACATCGTGACCGACAGCCAGTACGCGCTTGAGCA  | 2173 |
| Db | 3587 | CCCTTGACAGACAGCGGCGACGAGGTGAACATCGTGACCGACAGCCAGTACGCGCTTGAGCA  | 3646 |
| QY | 2174 | TCATTCAGAGCCCGACCGCAAGAGCGAGAGCTGTGTAAACCAATCATTCAGACAGC        | 2233 |
| Db | 3647 | TCATTCAGAGCCCGACCGCAAGAGCGAGAGCTGTGTAAACCAATCATTCAGACAGC        | 3706 |
| QY | 2234 | TGATCAAGAGAGAGGTGTACTGTAGCTGGGTGCGCGCCACCAAGGGACATCGGCGGCA      | 2293 |
| Db | 3707 | TGATCAAGAGAGAGGTGTACTGTAGCTGGGTGCGCGCCACCAAGGGACATCGGCGGCA      | 3766 |
| QY | 2294 | ACGAGCAGATCGACAGAGCTGTGTAGCAAGGACATCCCGAAGTGTCTTCTTGACGCA       | 2353 |
| Db | 3767 | ACGAGCAGATCGACAGAGCTGTGTAGCAAGGACATCCCGAAGTGTCTTCTTGACGCA       | 3826 |
| QY | 2354 | TCGATGCGCGCATCGTGTACTTACCAAGTACATGAGACACTGTACGTGTGGCAGCGCGCC    | 2413 |
| Db | 3827 | TCGATGCGCGCATCGTGTACTTACCAAGTACATGAGACACTGTGTACGTGTGGCAGCGCGCC  | 3886 |
| QY | 2414 | CTAAGATCGATTTAAAGCTTCCCGGGCTTACACCGGT 2451                      |      |

Db 3887 CTAGATGATTAAAGCTTCCCGGGCTAGCACCGGT 3924

## RESULT 8

US-10-190-435-58  
 ; Sequence 58, Application US/10190435  
 ; Publication No. US20030143248A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: ZUR MEGEDE, Jan  
 ; APPLICANT: BARNETT, Susan W.  
 ; APPLICANT: LIAN, Ying  
 ; APPLICANT: ENGELBRECHT, Susan  
 ; APPLICANT: VAN RENSBURG, Estrelita J.  
 ; TITLE OF INVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C  
 ; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
 ; FILE REFERENCE: P18133.003 / 2302-18133  
 ; CURRENT APPLICATION NUMBER: US/10/190,435  
 ; CURRENT FILING DATE: 2002-12-30  
 ; NUMBER OF SEQ ID NOS: 319  
 ; SOFTWARE: PatentIn Ver. 2.0  
 ; SEQ ID NO 58  
 ; LENGTH: 5184  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Description of Artificial Sequence: TatRevNefgagCpolIina C  
 US-10-190-435-58

Query Match 99.1%; Score 2434.8; DB 6; Length 5184;

Best Local Similarity 99.9%; Pred. No. 0;  
 Matches 2436; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Db 14 TGGCCGAGGCGCATGAGCCAGGCGCACGCAACATCTGTATGACGCGGCAACTTCA 73  
 2741 TGGCCGAGGCGCATGAGCCAGGCGCACGCAACATCTGTATGACGCGGCAACTTCA 2800  
 Oy 74 AGGCGCCCAAGCGCATCATCAAGTCTTCACTGCGGCAAGAGGCGCACATGCGCGCA 133  
 Db 2801 AGGCGCCCAAGCGCATCATCAAGTCTTCACTGCGGCAAGAGGCGCACATGCGCGCA 2860  
 Oy 134 ACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 193  
 Db 2861 ACTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 2920  
 Oy 194 AGGACTGACACGAGCGCGCAAGCTTCTTCCGCGAGGACTGCGCTTCCCGGAGGCA 253  
 Db 2921 AGGACTGACACGAGCGCGCAAGCTTCTTCCGCGAGGACTGCGCTTCCCGGAGGCA 2980  
 Oy 254 AGGCGCGCGAGTTTCCCGAGGAGCAAGACCGCGCAACAGCCCCCAAGCGCGAGCTGC 313  
 Db 2981 AGGCGCGCGAGTTTCCCGAGGAGCAAGACCGCGCAACAGCCCCCAAGCGCGAGCTGC 3040  
 Oy 314 AGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 373  
 Db 3041 AGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 3100  
 Oy 374 TCCCGCGAGTCAACCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 433  
 Db 3101 TCCCGCGAGTCAACCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 3160  
 Oy 434 AGGAGCGCGTGTGAGCAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 493  
 Db 3161 AGGAGCGCGTGTGAGCAACCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 3220  
 Oy 494 GCAAGTGAAGCCCAAGATGATCGGCGCGCATCGGCGGCTTCATCAAGGTGCGCGAGTACG 553  
 Db 3221 GCAAGTGAAGCCCAAGATGATCGGCGCGCATCGGCGGCTTCATCAAGGTGCGCGAGTACG 3280  
 Oy 554 ACCAGATCTGATCGAGATCTGCGGCAAGAGGCGCATCGGCGGCTGTGATCGGCGCGCA 613  
 Db 3281 ACCAGATCTGATCGAGATCTGCGGCAAGAGGCGCATCGGCGGCTGTGATCGGCGCGCA 3340  
 Oy 614 CCCCCGTGAACATCATCGGCGCGCAACATGCTGACCCAGCTGGGCTGCACTCTGAATTC 673

Db 3341 CCCCCGTGAACATCATCGGCGCGCAACATGCTGACCCAGCTGGGCTGCACTCTGAATTC 3400  
 Oy 674 CCATGAGCCCATCGAGACCGTGTCCCGTGAAGCTGAAGCCCGCGCATGAGCGGCCCAAG 733  
 Db 3401 CCATGAGCCCATCGAGACCGTGTCCCGTGAAGCTGAAGCCCGCGCATGAGCGGCCCAAG 3460  
 Oy 734 TGAACGATGGGCCCTGAGCCGAGGAGAGATCAAGGCGCTGACCGCATCTCGAGGAGA 793  
 Db 3461 TGAACGATGGGCCCTGAGCCGAGGAGAGATCAAGGCGCTGACCGCATCTCGAGGAGA 3520  
 Oy 794 TGAAGAGGAGGCGCAAGATCAACCAAGTGGCGCGGAGAACCCCTTCAACACCCCGTGT 853  
 Db 3521 TGAAGAGGAGGCGCAAGATCAACCAAGTGGCGCGGAGAACCCCTTCAACACCCCGTGT 3580  
 Oy 854 TGGCATCAAGAGAGAGAGACAGACCAAGTGGCGCAAGTGGTGTGACTTCCGAGCTGA 913  
 Db 3581 TGGCATCAAGAGAGAGAGACAGACCAAGTGGCGCAAGTGGTGTGACTTCCGAGCTGA 3640  
 Oy 914 ACAAGCGCACCGAGACTTCTGAGAGTGCAGCTGGGCACTCCCGCACCCCGCGGCTGA 973  
 Db 3641 ACAAGCGCACCGAGACTTCTGAGAGTGCAGCTGGGCACTCCCGCACCCCGCGGCTGA 3700  
 Oy 974 AGAAGAGAGAGCGGTGACCGTGTGAGCGTGGCGGACGCGCTTCACTTCAAGCTGCGCTGG 1033  
 Db 3701 AGAAGAGAGAGCGGTGACCGTGTGAGCGTGGCGGACGCGCTTCACTTCAAGCTGCGCTGG 3760  
 Oy 1034 ACGAGACTTTCGCGCAATGACCGGCTTCAACATCCCGAGCATCAACACGAGACCCCG 1093  
 Db 3761 ACGAGACTTTCGCGCAATGACCGGCTTCAACATCCCGAGCATCAACACGAGACCCCG 3820  
 Oy 1094 GCATCGGCTTACAGTCAACGTCGTCGCGCGGCGTGAAGGCGAGCGCCAGCATCTTC 1153  
 Db 3821 GCATCGGCTTACAGTCAACGTCGTCGCGCGGCGTGAAGGCGAGCGCCAGCATCTTC 3880  
 Oy 1154 AGAGCGAGTGAACCAAGATCTGAGACCTTCCGCGCGCGCAACCCGAGATGTGATCT 1213  
 Db 3881 AGAGCGAGTGAACCAAGATCTGAGACCTTCCGCGCGCGCAACCCGAGATGTGATCT 3940  
 Oy 1214 ACCAGGCGCGCGCTTGAAGTGGGCGAGCGACTGAGATCGGCGGACCGCGCAAGATCG 1273  
 Db 3941 ACCAGGCGCGCGCTTGAAGTGGGCGAGCGACTGAGATCGGCGGACCGCGCAAGATCG 4000  
 Oy 1274 AGAGCTGGGCGAAGCACTGTCGCGCGTGGGCTTCAACCCCGCAAGAGCAACAGA 1333  
 Db 4001 AGAGCTGGGCGAAGCACTGTCGCGCGTGGGCTTCAACCCCGCAAGAGCAACAGA 4060  
 Oy 1334 AGGAGCGCGCGCTTCTGCGCATGAGCTGACCCCGCAAGTGAACCGTCAAGCCATCG 1393  
 Db 4061 AGGAGCGCGCGCTTCTGCGCATGAGCTGACCCCGCAAGTGAACCGTCAAGCCATCG 4120  
 Oy 1394 AGCTGCGCGAAGAGAGAGCTGAGCCGTGAACGATCCAGAAAGCTGTGGGCAAGCTGA 1453  
 Db 4121 AGCTGCGCGAAGAGAGAGCTGAGCCGTGAACGATCCAGAAAGCTGTGGGCAAGCTGA 4180  
 Oy 1454 ACTGGGCGAGCGAGATCTTACCCCGGATCAAGTGGCGCGAGTGGCACTGTGCGCG 1513  
 Db 4181 ACTGGGCGAGCGAGATCTTACCCCGGATCAAGTGGCGCGAGTGGCACTGTGCGCG 4280  
 Oy 1514 GCGCGAAGGCGCTGACCGGACATGTCGCGCTGACCGGAGGCGGAGCTGAGCTGCGCG 1573  
 Db 4241 GCGCGAAGGCGCTGACCGGACATGTCGCGCTGACCGGAGGCGGAGCTGAGCTGCGCG 4300  
 Oy 1574 AGAAGCGGAGATCTGCGGAGCGCGTGAACGCGGTGTACTAGACCCCGCAAGAGACC 1633  
 Db 4301 AGAAGCGGAGATCTGCGGAGCGCGTGAACGCGGTGTACTAGACCCCGCAAGAGACC 4360  
 Oy 1634 TGGTGGCGGAGATCTGAGAACAGGCGGCAAGTGGGACTTACAGATCTTACAGAGAGC 1693  
 Db 4361 TGGTGGCGGAGATCTGAGAACAGGCGGCAAGTGGGACTTACAGATCTTACAGAGAGC 4420  
 Oy 1694 CTTTCAAGACTGGAAGACCGGCAAGTACCGCAAGATGCGCACCGGCCCAACAGACG 1753









|    |      |                                                                     |      |
|----|------|---------------------------------------------------------------------|------|
| QY | 301  | AGCGCGAGCTGCGAGGTGCGGCGGAGCAACCCCGGACGAGGCGCGCGCGAGCGGCGAG          | 360  |
| Db | 301  | AGCGCGAGCTGCGAGGTGCGGCGGAGCAACCCCGGACGAGGCGCGCGCGAGCGGCGAG          | 360  |
| QY | 361  | GGCAACCTTGAACTTCCCCAGATCACTCTGTGAGCGGCCCTCTGTGAGCATCAAGTG           | 420  |
| Db | 361  | GGCAACCTTGAACTTCCCCAGATCACTCTGTGAGCGGCCCTCTGTGAGCATCAAGTG           | 420  |
| QY | 421  | GGCGGCGGAGATTCAGAGAGGCGCTCTGTGACACCGGCGCCGACGACACCTGTGTGGAAGAG      | 480  |
| Db | 421  | GGCGGCGGAGATTCAGAGAGGCGCTCTGTGACACCGGCGCCGACGACACCTGTGTGGAAGAG      | 480  |
| QY | 481  | ATGAGACCTGCGCGGCAAGTGAAGGCCCAAGATGATCGGCGGATCTCGCGCTTATCAAG         | 540  |
| Db | 481  | ATGAGACCTGCGCGGCAAGTGAAGGCCCAAGATGATCGGCGGATCTCGCGCTTATCAAG         | 540  |
| QY | 541  | GTCGCGGCAATTCAGACCAAGATCTTGATCGAGATCTTGCGGCAAGAGGCCATCGGACCGTG      | 600  |
| Db | 541  | GTCGCGGCAATTCAGACCAAGATCTTGATCGAGATCTTGCGGCAAGAGGCCATCGGACCGTG      | 600  |
| QY | 601  | CTGATTCGGGCCCCACCCCGGTGAATCATATCGGGCGCAACATCGACCCGAGCTGGGCTGC       | 660  |
| Db | 601  | CTGATTCGGGCCCCACCCCGGTGAATCATATCGGGCGCAACATCGACCCGAGCTGGGCTGC       | 660  |
| QY | 661  | ACCCTGGAATTCCCATCAGGCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGCGATG        | 720  |
| Db | 661  | ACCCTGGAATTCCCATCAGGCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGCGATG        | 720  |
| QY | 721  | GACGGCCCCAGGTGTGAAGCATGTGCGCCCTTGACCGAGAGAAATCAAGAGCCCTTGACGGCC     | 780  |
| Db | 721  | GACGGCCCCAGGTGTGAAGCATGTGCGCCCTTGACCGAGAGAAATCAAGAGCCCTTGACGGCC     | 780  |
| QY | 781  | ATTCTGCGAGAGATGAGAGAGAGGCGCAAGATTCACCAAGATCGGCGCCCGAAGACCCCTTAC     | 840  |
| Db | 781  | ATTCTGCGAGAGATGAGAGAGAGGCGCAAGATTCACCAAGATCGGCGCCCGAAGACCCCTTAC     | 840  |
| QY | 841  | AACACCCCCGTGTTCGCATCAAGAGAGAGACAGACCAAGTGCGCGCAAGCTGTGTGTGAC        | 900  |
| Db | 841  | AACACCCCCGTGTTCGCATCAAGAGAGAGACAGACCAAGTGCGCGCAAGCTGTGTGTGAC        | 900  |
| QY | 901  | TTTCGGCGAGCTGGAACAAGCGCACCCGAGACCTTCTGGAGGCTGTGAGCTGTGGGCAATCCCGCAC | 960  |
| Db | 901  | TTTCGGCGAGCTGGAACAAGCGCACCCGAGACCTTCTGGAGGCTGTGAGCTGTGGGCAATCCCGCAC | 960  |
| QY | 961  | CCCGCGCGGCTTGAAAGAAAGAAAGAGCGGTGACCGTGTCTGACGTTGTGGCGACGCTACTTTC    | 1020 |
| Db | 961  | CCCGCGCGGCTTGAAAGAAAGAAAGAGCGGTGACCGTGTCTGACGTTGTGGCGACGCTACTTTC    | 1020 |
| QY | 1021 | AGCGTGCCTCTGAGAGAGAGATTTCCGCAAGTACACCGCTTCAACATCTCCCGAGATCAAC       | 1080 |
| Db | 1021 | AGCGTGCCTCTGAGAGAGAGATTTCCGCAAGTACACCGCTTCAACATCTCCCGAGATCAAC       | 1080 |
| QY | 1081 | AACGAGAGCCCCCGGCGATCGCTTACCAAGTACAAAGTGTGAGCTGCCCGAGGCGCTGGAAGGAGG  | 1140 |
| Db | 1081 | AACGAGAGCCCCCGGCGATCGCTTACCAAGTACAAAGTGTGAGCTGCCCGAGGCGCTGGAAGGAGG  | 1140 |
| QY | 1141 | CCGAGCATCTTTCAGAGGACGATGACCAAGATCTCTGAGGCCCTTTCGCGCCCGCAACCCC       | 1200 |
| Db | 1141 | CCGAGCATCTTTCAGAGGACGATGACCAAGATCTCTGAGGCCCTTTCGCGCCCGCAACCCC       | 1200 |
| QY | 1201 | GAGATTCGATCTTACCAAGGCGCCCTCTGTACGTTGGGCAAGGACCTGGAAGATCGGCGAGCAC    | 1260 |
| Db | 1201 | GAGATTCGATCTTACCAAGGCGCCCTCTGTACGTTGGGCAAGGACCTGGAAGATCGGCGAGCAC    | 1260 |
| QY | 1261 | CGCGGCAAGATTCAGAGAGCTGCGACAGCACTGTGCGGTGAGGCTTTCACCAACCCCGCAC       | 1320 |
| Db | 1261 | CGCGGCAAGATTCAGAGAGCTGCGACAGCACTGTGCGGTGAGGCTTTCACCAACCCCGCAC       | 1320 |
| QY | 1321 | AAGAAAGACACAGAAAGAGAGCCCTCTCTCTGCGCAT-----CGAGCTGCACCCCGACAG        | 1374 |
| Db | 1321 | AAGAAAGACACAGAAAGAGAGCCCTCTCTCTGCGCAT-----CGAGCTGCACCCCGACAG        | 1380 |

|    |      |                                                                     |      |
|----|------|---------------------------------------------------------------------|------|
| QY | 1375 | TGAGCCGTGGAGGCCATCTGAGCTGGCCGGAGAAGGAGCTGGACCGTGAACGACATCTCAG       | 1434 |
| Db | 1381 | TGAGCCGTGGAGGCCATCTGAGCTGGCCGGAGAAGGAGCTGGACCGTGAACGACATCTCAG       | 1440 |
| QY | 1435 | AAAGCTGGTGGGCAAGCTGAACTGGGCGAGCCAGACTTAACTCCCGAGATCAAGGTGGCGCAG     | 1494 |
| Db | 1441 | AAAGCTGGTGGGCAAGCTGAACTGGGCGAGCCAGCAAGACTTAACTCCCGAGATCAAGGTGGCGCAG | 1500 |
| QY | 1495 | CTGTGGCAAGCTGTGGCCCGCGGCCCAAGGCCCTTGAACGCAKATCGTGGCCCTTGACCGAAGAG   | 1554 |
| Db | 1501 | CTGTGGCAAGCTGTGGCCCGCGGCCCAAGGCCCTTGAACGCAKATCGTGGCCCTTGACCGAAGAG   | 1560 |
| QY | 1555 | GCCGAGCTGGAGCTGGCGCGAGAACCGGAGATCTCTGGCGAGGCCCGTGGCAACGCGCTGTAC     | 1614 |
| Db | 1561 | GCCGAGCTGGAGCTGGCGCGAGAACCGGAGATCTCTGGCGAGGCCCGTGGCAACGCGCTGTAC     | 1620 |
| QY | 1615 | TACGACCCCAAGCAAGAGACTGTGTGGCCGAGATCTCAAGACGAGGGCCACGACAGTGGACC      | 1674 |
| Db | 1621 | TACGACCCCAAGCAAGAGACTGTGTGGCCGAGATCTCAAGAGAGGGCCACGACAGTGGACC       | 1680 |
| QY | 1675 | TACGAGATCTACAGAGAGGCCCTTCAAGAACCTTGAAAGACCGGCAAGTACGCGCAAGATGCGC    | 1734 |
| Db | 1681 | TACGAGATCTACAGAGAGGCCCTTCAAGAACCTTGAAAGACCGGCAAGTACGCGCAAGATGCGC    | 1740 |
| QY | 1735 | ACCGCCCAACCAACGACGTGAAGCAGCTGACCGAGGCCGTGCAGAAAGATCCGCAATGAG        | 1794 |
| Db | 1741 | ACCGCCCAACCAACGACGTGAAGCAGCTGACCGAGGCCGTGCAGAAAGATCCGCAATGAG        | 1800 |
| QY | 1795 | AGCATCGTGATCTGGGGCGAAGACCCCGCAAGTCCGCGCTGCACATCCGAAGAGAACCTGG       | 1854 |
| Db | 1801 | AGCATCGTGATCTGGGGCGAAGACCCCGCAAGTCCGCGCTGCACATCCGAAGAGAACCTGG       | 1860 |
| QY | 1855 | GAGACCTGTGTGACCGGACTACTGTGCAGAGCCACTTGATCCCGAGTGGAGTTCTGTAAAC       | 1914 |
| Db | 1861 | GAGACCTGTGTGACCGGACTACTGTGCAGAGCCACTTGATCCCGAGTGGAGTTCTGTAAAC       | 1920 |
| QY | 1915 | ACCCCCCCTGTGTGAAGCTGTGTATCCAGCTGGAGAAGAGGCCATCATCTGGGCGCGAG         | 1974 |
| Db | 1921 | ACCCCCCCTGTGTGAAGCTGTGTGTACAGCTGGAGAAGAGGCCATCATCTGGGCGCGAG         | 1980 |
| QY | 1975 | ACCTTTACGTGAGCGGCGCCGCAACCGGAGACCAAGATCGGCAAGGCCGCGCTTACGTC         | 2034 |
| Db | 1981 | ACCTTTACGTGAGCGGCGCCGCAACCGGAGACCAAGATCGGCAAGGCCGCGCTTACGTC         | 2040 |
| QY | 2035 | ACCGACCGGGCGCGGCAAGAGATGTGAGGCTTGACCGAGACCAACCAACCAAGAGACCGAG       | 2094 |
| Db | 2041 | ACCGACCGGGCGCGGCAAGAGATGTGAGGCTTGACCGAGACCAACCAACCAAGAGACCGAG       | 2100 |
| QY | 2095 | CTGAGAGGCATCCGACGTGGCCCTCTGACAGAGACAGCGGGACGCGAGGTGAACATGTGTACCGAC  | 2154 |
| Db | 2101 | CTGAGAGGCATCCGACGTGGCCCTCTGACAGAGACAGCGGGACGCGAGGTGAACATGTGTACCGAC  | 2160 |
| QY | 2155 | AGCCAGTACGCGCTGTGGGATCATCCAGGCCCGACCGACCAAGAGCGAGCGAGCTGGTG         | 2214 |
| Db | 2161 | AGCCAGTACGCGCTGTGGGATCATCCAGGCCCGACCGACCAAGAGCGAGCGAGCTGGTG         | 2220 |
| QY | 2215 | AAACGAGTCAATCGAGACAGCTGATCAAGAGAGAAAGGTGTACTCTGACTGGTGTGCCGCC       | 2274 |
| Db | 2221 | AAACGAGTCAATCGAGACAGCTGATCAAGAGAGAAAGGTGTACTCTGACTGGTGTGCCGCC       | 2280 |
| QY | 2275 | CACAAAGGAGCATCGGCGGCAACGACAGATCGACAAAGCTGTGTGACAAAGGCGATCCGCAAG     | 2334 |
| Db | 2281 | CACAAAGGAGCATCGGCGGCAACGACAGATCGACAAAGCTGTGTGACAAAGGCGATCCGCAAG     | 2340 |
| QY | 2335 | GTGCTGTTCTCTGACCGGCATCGATGGCGGACTGTGTACTTACAGATACATGAGCGACTTG       | 2394 |
| Db | 2341 | GTGCTGTTCTCTGACCGGCATCGATGGCGGACTGTGTACTTACAGATACATGAGCGACTTG       | 2400 |
| QY | 2395 | TACGTGGGCAAGCGCGGCCCTTAAGATATGATTAAAGCTCCCGGGGCTAGACCGGT            | 2451 |
| Db | 2401 | TACGTGGGCAAGCGCGGCCCTTAAGATATGATTAAAGCTCCCGGGGCTAGACCGGT            | 2457 |

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RESULT 11
US-10-190-305A-38
; Sequence 38, Application US/10190305A
; Publication No. US20030198621A1
; GENERAL INFORMATION:
; APPLICANT: BARNETT, Susan
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: LIAN, Yang
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR
; TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: 2302-18702 / 18702.002
; CURRENT APPLICATION NUMBER: US/10/190,305A
; CURRENT FILING DATE: 2002-07-05
; NUMBER OF SEQ ID NOS: 93
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 38
; LENGTH: 2457
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: p2Polopr.YM_C
US-10-190-305A-38

Query Match 98.8%; Score 2428.6; DB 6; Length 2457;
Best Local Similarity 99.6%; Pred. No. 0;
Matches 2447; Conservative 0; Mismatches 4; Indels 6; Gaps 1;

QY 1 GTGCAAGCCACATGAGCCGAGCCATGAGCCAGCCAGCCCAACATCTGATGACAG 60
DB 1 GTGCAAGCCACATGAGCCGAGCCATGAGCCAGCCAGCCCAACATCTGATGACAG 60
QY 61 CGCAGCACTTCAAGGGGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGAGGC 120
DB 61 CGCAGCACTTCAAGGGGCCCAAGCGCATCATCAAGTGTCTTCAACTGCGGCAAGAGAGGC 120
QY 121 CAATGCGCCGCACTGCGCGCGCGCGCGCGCGCGCGCAAGAGGGCTGCTGGAAGTCCGCAAGAG 180
DB 121 CAATGCGCCGCACTGCGCGCGCGCGCGCGCGCGCGCAAGAGGGCTGCTGGAAGTCCGCAAGAG 180
QY 121 GGCACACAGATGAGAGCTGACACGAGCGGCGGCGCAACTTCTTCCGCGAGGACTTGGCC 240
DB 181 GGCACACAGATGAGAGCTGACACGAGCGGCGGCGCAACTTCTTCCGCGAGGACTTGGCC 240
QY 181 GGCACACAGATGAGAGCTGACACGAGCGGCGGCGCAACTTCTTCCGCGAGGACTTGGCC 240
DB 181 GGCACACAGATGAGAGCTGACACGAGCGGCGGCGCAACTTCTTCCGCGAGGACTTGGCC 240
QY 241 TTCCCGGAGGCAAGGCGCGGAGTTCCCGAGCGAGCAACCGCGGCAACAGCCGCAAC 300
DB 241 TTCCCGGAGGCAAGGCGCGGAGTTCCCGAGCGAGCAACCGCGGCAACAGCCGCAAC 300
QY 301 AGCGCGAGCTGCAAGTGGCGGCGGCAACCCCGCGAGGCGCGCGCGCGCGAGCGCCAG 360
DB 301 AGCGCGAGCTGCAAGTGGCGGCGGCAACCCCGCGAGGCGCGCGCGCGCGAGCGCCAG 360
QY 301 AGCGCGAGCTGCAAGTGGCGGCGGCAACCCCGCGAGGCGCGCGCGCGCGAGCGCCAG 360
DB 301 AGCGCGAGCTGCAAGTGGCGGCGGCAACCCCGCGAGGCGCGCGCGCGCGAGCGCCAG 360
QY 361 GGCACCTGAACTTCCCGGAGATCACTTGGCGAGCGCGCGCGCGCGCGGATGAAGTG 420
DB 361 GGCACCTGAACTTCCCGGAGATCACTTGGCGAGCGCGCGCGCGCGCGGATGAAGTG 420
QY 421 GCGGCGCAAGTCAAGAGGCGCTGCTGAGCAACCGGCGCGGCGAGCAACCGTGTGAGAG 480
DB 421 GCGGCGCAAGTCAAGAGGCGCTGCTGAGCAACCGGCGCGGCGAGCAACCGTGTGAGAG 480
QY 481 ATGAGCTGCGCGGCAAGTGAAGCCCAAGATGATCGGCGGCGAGAGGCGCATCGGAC 540
DB 481 ATGAGCTGCGCGGCAAGTGAAGCCCAAGATGATCGGCGGCGAGAGGCGCATCGGAC 540
QY 541 GTGCGCAGTACGACGAGATCTGATGAGATCTGCGGCAAGAGAGGCGCATCGGAC 600
DB 541 GTGCGCAGTACGACGAGATCTGATGAGATCTGCGGCAAGAGAGGCGCATCGGAC 600
QY 601 CTGATCGGCGCGCAACCGCGGAGATCATCGGCGGCAACGATGAGCCCACTGGGCTGC 660
DB 601 CTGATCGGCGCGCAACCGCGGAGATCATCGGCGGCAACGATGAGCCCACTGGGCTGC 660
QY 661 ACCGTGAACCTTCCCGATACGCGCGCATGAGACCGTGGCGCGGAGGAGCGCGGAGTG 720
DB 661 ACCGTGAACCTTCCCGATACGCGCGCATGAGACCGTGGCGCGGAGGAGCGCGGAGTG 720

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DB 661 ACCGTGAACCTTCCCGATACGCGCGCATGAGACCGTGGCGCGGAGGAGCGCGGAGTG 720
QY 721 GACGCGCCCAAGGTGAAGAGTGGCCCTGACCGGAGGAGAAGTCAAGGCCCTGACCGCC 780
DB 721 GACGCGCCCAAGGTGAAGAGTGGCCCTGACCGGAGGAGAAGTCAAGGCCCTGACCGCC 780
QY 781 ATCTGCGAGAGATGAGAGAGGCGCAAGATCAACCAAGATCGGCCCGGAGAACCCCTAC 840
DB 781 ATCTGCGAGAGATGAGAGAGGCGCAAGATCAACCAAGATCGGCCCGGAGAACCCCTAC 840
QY 841 AACACCCCGGTGTTCGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900
DB 841 AACACCCCGGTGTTCGATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 900
QY 901 TTCCGCGAGCTGAACAGGCGCACCCGAGACTTCTGGAAGGTGAGCTGGGCAATCCCCAC 960
DB 901 TTCCGCGAGCTGAACAGGCGCACCCGAGACTTCTGGAAGGTGAGCTGGGCAATCCCCAC 960
QY 961 CCGCGCGGCTGAAG 1020
DB 961 CCGCGCGGCTGAAG 1020
QY 1021 AGCGTCCCTTGAGCAGAGACTTCCGCAAGTACACCGCCTTCAACATCCGACATCAAC 1080
DB 1021 AGCGTCCCTTGAGCAGAGACTTCCGCAAGTACACCGCCTTCAACATCCGACATCAAC 1080
QY 1081 AACGAGACCCCGGCAATCGGCTACAGTACAGTGTCTGCGCGCGCGCGCGAGGCGAGC 1140
DB 1081 AACGAGACCCCGGCAATCGGCTACAGTACAGTGTCTGCGCGCGCGCGCGAGGCGAGC 1140
QY 1141 CCCAGATCTTCCAGAGAGAGATGACCAAGATCTGGAAGCCTTCCGCGCGCGCAACCC 1200
DB 1141 CCCAGATCTTCCAGAGAGAGATGACCAAGATCTGGAAGCCTTCCGCGCGCGCAACCC 1200
QY 1201 GAGATGATGATCTACAGAGGCGCCCTGTACGTGGGAGAGAGAGAGAGAGAGAGAGAGAG 1260
DB 1201 GAGATGATGATCTACAGAGGCGCCCTGTACGTGGGAGAGAGAGAGAGAGAGAGAGAGAG 1260
QY 1261 GCGGCAAGTCAAGAGAGTGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1320
DB 1261 GCGGCAAGTCAAGAGAGTGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1320
QY 1321 AAGAGAGACCAAGAGAGGCGCCCTTCCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1374
DB 1321 AAGAGAGACCAAGAGAGGCGCCCTTCCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1374
QY 1375 TGAACGCTGAGCCCATCGAGCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1434
DB 1381 TGAACGCTGAGCCCATCGAGCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1440
QY 1435 AAGCTGTGGGCAAGCTGAAGTGGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1494
DB 1441 AAGCTGTGGGCAAGCTGAAGTGGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1500
QY 1495 CTGTGCAAGTGTGCGCGGCGGCGCAAGGCGCTGAGCGAGATCGTGTGCGCGAGAGAGAG 1554
DB 1501 CTGTGCAAGTGTGCGCGGCGGCGCAAGGCGCTGAGCGAGATCGTGTGCGCGAGAGAGAG 1560
QY 1555 GCGAGCTGAGAGTGGCGGAGAACCGGAGATCTGTGCGAGAGCGGCTGACAGGCGTAC 1614
DB 1561 GCGAGCTGAGAGTGGCGGAGAACCGGAGATCTGTGCGAGAGCGGCTGACAGGCGTAC 1620
QY 1615 TACGACCCCAAG 1674
DB 1621 TACGACCCCAAG 1680
QY 1675 TACGAGATCTACAG 1734
DB 1681 TACGAGATCTACAG 1740
QY 1735 ACCGCGCAGACCAAG 1794
DB 1741 ACCGCGCAGACCAAG 1800

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QY 1795 AGCATGTGATCTGGGGCAAGACCCCAAGTTCCGGCTGCCCATCCAGAGGAGACTCTG 1854
DB 1801 AGCATGTGATCTGGGGCAAGACCCCAAGTTCCGGCTGCCCATCCAGAGGAGACTCTG 1860
QY 1855 GAGACTGTGTGAGCCGACTACTGTGAGGAGCCACTGTGATCCCGAGTGGAGTTCTGTAA 1914
DB 1861 GAGACTGTGTGAGCCGACTACTGTGAGGAGCCACTGTGATCCCGAGTGGAGTTCTGTAA 1920
QY 1915 ACCCCCCCTGTGTGAGTGTGTGTGTCAGCTGTGAGAGAGAGAGCCCATCTGCCCCCG 1974
DB 1921 ACCCCCCCTGTGTGAGTGTGTGTGTCAGCTGTGAGAGAGAGAGCCCATCTGCCCCCG 1980
QY 1975 ACCTTCTAGTGTGAGCCGAGCCGCAACCCGAGAGACCAAGATCGGCAAGGCCGCTACGT 2034
DB 1981 ACCTTCTAGTGTGAGCCGAGCCGCAACCCGAGAGACCAAGATCGGCAAGGCCGCTACGT 2040
QY 2035 ACCGACCGGGGCGGAGAGAGATCGTGAAGCTTGACCGAGACCAACCAAGAGACCGAG 2094
DB 2041 ACCGACCGGGGCGGAGAGAGATCGTGAAGCTTGACCGAGACCAACCAAGAGACCGAG 2100
QY 2095 CTGCAAGGCGCATCCAGCTGGCCCTGTGAGAGACAGCGGAGAGAGTGAACATCTGTACCG 2154
DB 2101 CTGCAAGGCGCATCCAGCTGGCCCTGTGAGAGACAGCGGAGAGAGTGAACATCTGTACCG 2160
QY 2155 AGCAGTACGCCCCCTGGGAGATCATCCAGGCCAGCCGAGCAAGAGAGAGAGAGCTGTG 2214
DB 2161 AGCAGTACGCCCCCTGGGAGATCATCCAGGCCAGCCGAGCAAGAGAGAGAGAGCTGTG 2220
QY 2215 AACCATGATCATGAGAGAGCTGTATCAAGAGAGAGAGTGTACTGTAGCTGGGTGCCGCC 2274
DB 2221 AACCATGATCATGAGAGAGCTGTATCAAGAGAGAGAGTGTACTGTAGCTGGGTGCCGCC 2280
QY 2275 CACAAAGGAGATCGGCGGAGAGAGAGATTCAGACACTGTGTGAGAGAGAGAGATCCCG 2334
DB 2281 CACAAAGGAGATCGGCGGAGAGAGAGATTCAGACACTGTGTGAGAGAGAGAGATCCCG 2340
QY 2335 GAGCTGTCTGTGAGAGAGATTCAGAGAGAGAGATTCAGAGATTCAGAGATTCAGAG 2394
DB 2341 GAGCTGTCTGTGAGAGAGATTCAGAGAGAGAGATTCAGAGATTCAGAGATTCAGAG 2400
QY 2395 TACGTGGAGAGCGGCGGCTTAGATCGATTAAAGCTTCCCGGGCTAGACCGGT 2451
DB 2401 TACGTGGAGAGCGGCGGCTTAGATCGATTAAAGCTTCCCGGGCTAGACCGGT 2457

RESULT 12
US-09-899-575-30
; Sequence 30, Application US/09899575
; Publication No. US20030223961A1
; GENERAL INFORMATION:
; APPLICANT: Zur Megede, Jan
; APPLICANT: Barnett, Susan W.
; APPLICANT: Egneldreht, Susan
; APPLICANT: van Rensburg, Estrelita Janse
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYNUCLEOTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: PP01631.102
; CURRENT APPLICATION NUMBER: US/09/899,575
; PRIOR FILING DATE: 2001-07-05
; PRIOR APPLICATION NUMBER: 09/475,704
; PRIOR FILING DATE: 1999-12-30
; NUMBER OF SEQ ID NOS: 135
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 30
; LENGTH: 2469
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: PR975(+)
US-09-899-575-30
Query Match 98.3%; Score 2415.4; DB 3; Length 2469;
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Best Local Similarity 99.3%; Pred. No. 0;
Matches 2451; Conservative 0; Mismatches 6; Indels 12; Gaps 2;
QY 1 GTGAGAGCCACATGAGCCGAGAGGCGCATGAGCCGAGGCGCAACGAGGCGCAATCTGTAGAG 60
DB 1 GTGAGAGCCACATGAGCCGAGAGGCGCATGAGCCGAGGCGCAACGAGGCGCAATCTGTAGAG 60
QY 61 CGAGCAACTTCAAGAGGCGCCCAAGGCGCATCATCAAGTGTTCATACTGCGGCAAGAGAGG 120
DB 61 CGAGCAACTTCAAGAGGCGCCCAAGGCGCATCATCAAGTGTTCATACTGCGGCAAGAGAGG 120
QY 121 CACATGCGCCGCAACTGCG 180
DB 121 CACATGCGCCGCAACTGCG 180
QY 181 GGCACACGAGTGAAGGACTGCAACGAGGCGCGAGGCGCACTTCTTCGCGAGAGAGCTGAGC 240
DB 181 GGCACACGAGTGAAGGACTGCAACGAGGCGCGAGGCGCACTTCTTCGCGAGAGAGCTGAGC 240
QY 241 TTCGCCAGAGGAGAGGCGCGGAGGTTCCCGAGGAGAGAGAGAGAGAGAGAGAGAGAGAG 300
DB 241 TTCGCCAGAGGAGAGGCGCGGAGGTTCCCGAGGAGAGAGAGAGAGAGAGAGAGAGAGAG 300
QY 301 AGCCGAGAGCTGAGAGTGTGCGGCGAGCAACCCCGGAGAGAGAGAGAGAGAGAGAGAG 360
DB 301 AGCCGAGAGCTGAGAGTGTGCGGCGAGCAACCCCGGAGAGAGAGAGAGAGAGAGAGAG 360
QY 361 GGCACCTGAACTTCCCGGAGATCAACCTGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAG 420
DB 361 GGCACCTGAACTTCCCGGAGATCAACCTGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAG 420
QY 421 GCGGCGAGATCAAGAGAGGCGCTGTGTGACACCGGCGCGAGAGAGAGAGAGAGAGAGAG 480
DB 421 GCGGCGAGATCAAGAGAGGCGCTGTGTGACACCGGCGCGAGAGAGAGAGAGAGAGAGAG 480
QY 481 ATGAGCTTCCCGGAG 540
DB 481 ATGAGCTTCCCGGAG 540
QY 541 GTCGCGAGATGAAG 600
DB 541 GTCGCGAGATGAAG 600
QY 601 CTGATGAGGCGGAG 660
DB 601 CTGATGAGGCGGAG 660
QY 661 ACCCTGAATCTTCCCGATCAAGCCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 720
DB 661 ACCCTGAATCTTCCCGATCAAGCCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 720
QY 721 GAGGCGGCGGAG 780
DB 721 GAGGCGGCGGAG 780
QY 781 ATCTGAG 840
DB 781 ATCTGAG 840
QY 841 AACACCCCGGTGTGTCATCAAG 900
DB 841 AACACCCCGGTGTGTCATCAAG 900
QY 901 TTCGCGAGAGTGAAG 960
DB 901 TTCGCGAGAGTGAAG 960
QY 961 CCGGCGGCGCTGAAG 1020
DB 961 CCGGCGGCGCTGAAG 1020
QY 1021 AGGTGCGGCTGAG 1080
DB 1021 AGGTGCGGCTGAG 1080
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Db 1021 AGCGTCCCTGGAGAGGACTTCCGCAAGTACACCGCTTACCATCCCAAGCATCAAC 1080
Qy 1081 AACGAGACCCCGGCAATCCGCTACCAAGTACCAAGTCTGCCCCAGGCGCTGAAGGCGAGC 1140
Db 1081 AACGAGACCCCGGCAATCCGCTACCAAGTACCAAGTCTGCCCCAGGCGCTGAAGGCGAGC 1140
Qy 1141 CCCAGCATTTTCAGAGCAGCATGACCAAGATCTTGAGCCCTTCCGCGCCCGCAACCCC 1200
Db 1141 CCCAGCATTTTCAGAGCAGCATGACCAAGATCTTGAGCCCTTCCGCGCCCGCAACCCC 1200
Qy 1201 GAGATCGTATCTTACCA-----GGCCCCCTGTACGTGGGAGCGACCTGAGATCGAGC 1254
Db 1201 GAGATCGTATCTTACCAAGTACATGACGACTGTACGTGGGAGCGACCTGAGATCGAGC 1260
Qy 1255 CAGCACCGGCGCAAGATCGAGAGAGTGGCGCAAGCACTCTGCGCTGGGGCTTCAACACC 1314
Db 1261 CAGCACCGGCGCAAGATCGAGAGAGTGGCGCAAGCACTCTGCGCTGGGGCTTCAACACC 1320
Qy 1315 CCCGACAAAGAGCAGCAAGAGAGGAGCCCTTCTGCTCCCAT-----CGAGCTGACCCC 1368
Db 1321 CCCGACAAAGAGCAGCAAGAGAGGAGCCCTTCTGCTGAGTGGGCTACGAGCTGACCCC 1380
Qy 1369 GACAACTGAGACCTGTCAGACCCCATTCAGCTGCCCCGAGAGAGAGAGCTTGAACGAC 1428
Db 1381 GACAACTGAGACCTGTCAGACCCCATTCAGCTGCCCCGAGAGAGAGAGCTTGAACGAC 1440
Qy 1429 ATCCAGAGCTGGTGGGCAAGCTGGAACCTGGGCGAGCGACAGATCTAACCCCGCATCAAGTG 1488
Db 1441 ATCCAGAGCTGGTGGGCAAGCTGGAACCTGGGCGAGCGACAGATCTAACCCCGCATCAAGTG 1500
Qy 1489 CGCCAGCTGTGCAAGCTGTGTCGCGCGCGCCAGAGCCCTGACCGACATCTGTCCCTGACC 1548
Db 1501 CGCCAGCTGTGCAAGCTGTGTCGCGCGCGCCAGAGCCCTGACCGACATCTGTCCCTGACC 1560
Qy 1549 GAGAGAGCGGAGCTGAGCTGCGCGAGAACCCGAGATCTCTGGCGGAGCCCTGTCAGCGCC 1608
Db 1561 GAGAGAGCGGAGCTGAGCTGCGCGAGAACCCGAGATCTCTGGCGGAGCCCTGTCAGCGCC 1620
Qy 1609 GTGTACTACGACCCCGAGCAAGAGACTGTGGGCGAGATCTCAGAGAGCGAGGCGACAGCAG 1668
Db 1621 GTGTACTACGACCCCGAGCAAGAGACTGTGGGCGAGATCTCAGAGAGCGAGGCGACAGCAG 1680
Qy 1669 TGGACCTACCAAGATCTTACAGAGAGCCCTTCAAGAACCTTGAAGACCGGCAAGTACGCCAAG 1728
Db 1681 TGGACCTACCAAGATCTTACAGAGAGCCCTTCAAGAACCTTGAAGAACCGGCAAGTACGCCAAG 1740
Qy 1729 ATGGGACCGGCGCACACCAACGAGTGAAGAGCTGACCGAGGCGGTGCGAGAGATGCGC 1788
Db 1741 ATGGGACCGGCGCACACCAACGAGTGAAGAGCTGACCGAGGCGGTGCGAGAGATGCGC 1800
Qy 1789 ATGGAAGAGCATCTGTGATCTGGGGGAGAACCCCGCAAGTTCCGCGCCCATCCAGAGAGAG 1848
Db 1801 ATGGAAGAGCATCTGTGATCTGGGGGAGAACCCCGCAAGTTCCGCGCCCATCCAGAGAGAG 1860
Qy 1849 ACCGCGGAGACCTGTGTGAGACCGACTATCTGGAGGCGACCTTGATCCCGAGTGGAGATTTC 1908
Db 1861 ACCGCGGAGACCTGTGTGAGACCGACTATCTGGAGGCGACCTTGATCCCGAGTGGAGATTTC 1920
Qy 1909 GTGAACAACCCCGCTGTGTGAAGCTGTGTGATCCAGCTGAGAGAGAGAGGCCATCATCGGC 1968
Db 1921 GTGAACAACCCCGCTGTGTGAAGCTGTGTGATCCAGCTGAGAGAGAGGCCATCATCGGC 1980
Qy 1969 GCGGAGACCTTTCTACGTGAGAGGCGCGCGCAACCGCGAGAGCAAGATCTGGGAGAGCGCGC 2028
Db 1981 GCGGAGACCTTTCTACGTGAGAGGCGCGCGCAACCGCGAGAGCAAGATCTGGGAGAGCGCGC 2040
Qy 2029 TAGGTGACCGAGCGGGGCGCGGAGAGATCTGTAGCTGTGACCGAGACCAACCAAGAG 2088
Db 2041 TAGGTGACCGAGCGGGGCGCGGAGAGATCTGTAGCTGTGACCGAGACCAACCAAGAG 2100
Qy 2089 ACCGAGCTGAGAGGCGCATCAAGCTGGCCCTTGAAGAGCAGCGGCGAGGAGTGAACATCGTG 2148
Db 2101 ACCGAGCTGAGAGGCGCATCAAGCTGGCCCTTGAAGAGCAGCGGCGAGGAGTGAACATCGTG 2160

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Qy 2149 ACCGAGCGCATGACGCCCTGGGAGATCAATCCAGGCGCCAGCCGACAAAGAGCGAGAGCGAG 2208
Db 2161 ACCGAGCGCATGACGCCCTGGGAGATCAATCCAGGCGCCAGCCGACAAAGAGCGAGAGCGAG 2220
Qy 2209 CTGTGTAACACGATCATGAGAGAGCTGATCAAGAGAGAGAGTGTACTGTAGCTGGGTG 2268
Db 2221 CTGTGTAACACGATCATGAGAGAGCTGATCAAGAGAGAGAGTGTACTGTAGCTGGGTG 2280
Qy 2269 CCGGCGCCAAAGGAGCATGGCGGCGCAACGAGATTCAGACACTGTGTGAGCAAGGCGATC 2328
Db 2281 CCGGCGCCAAAGGAGCATGGCGGCGCAACGAGATTCAGACACTGTGTGAGCAAGGCGATC 2340
Qy 2329 CCGAGAGTCTGTCTCTGAGCGGCGCATTCATGAGCGGCGATGTGATCTACAGTACATGAGC 2388
Db 2341 CCGAGAGTCTGTCTCTGAGCGGCGCATTCATGAGCGGCGATGTGATCTACAGTACATGAGC 2400
Qy 2389 GACCTGTACGTGGGAGCGCGCGCTAGATTCATTAAGCTTCCCGGGCTAGCACCC 2448
Db 2401 GACCTGTACGTGGGAGCGCGCGCTAGATTCATTAAGCTTCCCGGGCTAGCACCC 2460
Qy 2449 GGTGAATTTC 2457
Db 2461 GGTGAATTTC 2469

RESULT 13
US-10-190-435-13
; Sequence 13, Application US/10190435
; Publication No. US20030143248A1
;
; GENERAL INFORMATION:
; APPLICANT: ZUR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Estrelita J.
; TITLE OF INVENTION: POLYPEPTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
; LENGTH: 3531
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: GagPolmut_C
US-10-190-435-13

Query Match 97.9%; Score 2404.4; DB 6; Length 3531;
Best Local Similarity 99.1%; Pred. No. 0;
Matches 2417; Conservative 0; Mismatches 21; Indels 0; Gaps 0;

Qy 14 TGGCGGAGGCGCATGAGCGAGGCGCAACGAGCGCAACATCTGTAGTACGCGCAGCAACTTCA 73
Db 1088 TGGCGGAGGCGCATGAGCGAGGCGCAACGAGCGCGATGATGATGCGAAGAGCAACTTTAAA 1147
Qy 74 AGGGCGCCCAAGCGCATATCAAGTCTTCAACTGGCGGCAAGAGGCGCACATGCGCGCA 133
Db 1148 AGGGCGCCCAAGCGCATATCAAGTCTTCAACTGGCGGCAAGAGGCGCACATGCGCGCA 1207
Qy 134 ACTGCGCGCGCGCGCGCAAGAGGCGTGTGAAGTGCAGGCAAGAGGCGCACAGATGA 193
Db 1208 ACTGCGCGCGCGCGCGCAAGAGGCGTGTGAAGTGCAGGCAAGAGGCGCACAGATGA 1267
Qy 194 AGGACTGACCGAGCGGCGCAGGCGCAACTTTCTTCCGCGAGAGCTTGGCTTCCCGAGGGCA 253
Db 1268 AGGACTGACCGAGCGGCGCAGGCGCAACTTTCTTCCGCGAGAGCTTGGCTTCCCGAGGGCA 1327
Qy 254 AGGCGCGCGAGTTCCCGAGAGAGAGCAAGCGGCGCAACAGGCCCGACAGCGCGAGCTGC 313

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Db 1328 AGGCCCCGAGTTCCCCAGCGAGAAACCGCGCCAAACAGCCCCACAGCCCGAGACTGC 1387  
Oy 314 AGTGCAGCGGCGACAAACCCCGCAGCGAGCGCGCGCGAGCGACCGTGAATCT 373  
Db 1388 AGGTGCGCGGCGACAAACCCCGCAGCGAGCGCGCGCGAGCGACCGTGAATCT 1447  
Oy 374 TCCCCAGATCAACCTGTGGCAGCGCCCTGTGTGAGCATCAAGGTGGCGGCGAGATCA 433  
Db 1448 TCCCCAGATCAACCTGTGGCAGCGCCCTGTGTGAGCATCAAGGTGGCGGCGAGATCA 1507  
Oy 434 AGAGGCGCTGCTGAGCACCGCGCGCGAGCACCGTGTGTGAGAGATGAGCTGC 493  
Db 1508 AGAGGCGCTGCTGAGCACCGCGCGCGAGCACCGTGTGTGAGAGATGAGCTGC 1567  
Oy 494 GGAAGTGAAGGCCAAGATGATCGGCGGATCGGCGGCTTCATCAAGGTGGCGAGTAC 553  
Db 1568 GGAAGTGAAGGCCAAGATGATCGGCGGATCGGCGGCTTCATCAAGGTGGCGAGTAC 1627  
Oy 554 ACCAGTCTGTGATCGAGATCTGCGGCAAGAGGCCATCGGCAACCGTGTGATCGGCGCA 613  
Db 1628 ACCAGTCTGTGATCGAGATCTGCGGCAAGAGGCCATCGGCAACCGTGTGATCGGCGCA 1687  
Oy 614 CCCCCGTGAACATCATCGGCGCGACATGCTGAACCGATCGGCTGCAACCTGAATCTCC 673  
Db 1688 CCCCCGTGAACATCATCGGCGCGACATGCTGAACCGATCGGCTGCAACCTGAATCTCC 1747  
Oy 674 CCATCAGCCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGCAATGAGCGGCCCAAG 733  
Db 1748 CCATCAGCCCCATCGAGACCGTGCCTGTGAAGCTGAAGCCCGGCAATGAGCGGCCCAAG 1807  
Oy 734 TGAAGCATGTGCCCCCTGACCGAGAGAAATCAAGGCCCTGACCGGCATCTGTGAGAGAG 793  
Db 1808 TGAAGCATGTGCCCCCTGACCGAGAGAAATCAAGGCCCTGACCGGCATCTGTGAGAGAG 1867  
Oy 794 TGAAGAGAGAGGAGCAATCAACAGATGCGCCCCGAGAACCCCTTACAAACCCCGTGT 853  
Db 1868 TGAAGAGAGAGGAGCAATCAACAGATGCGCCCCGAGAACCCCTTACAAACCCCGTGT 1927  
Oy 854 TGGCCATCAAGAAAGAGAGACAGCAACAGTGGCGAAGCTGTGTGACTTCCGCGAGCTGA 913  
Db 1928 TGGCCATCAAGAAAGAGAGACAGCAACAGTGGCGAAGCTGTGTGACTTCCGCGAGCTGA 1987  
Oy 914 ACAAGGCAACCGAGACTTCTGTGAGAGTCAAGCTGTGGCATTCCGCCACCGCGCGGCTGA 973  
Db 1988 ACAAGGCAACCGAGACTTCTGTGAGAGTCAAGCTGTGGCATTCCGCCACCGCGCGGCTGA 2047  
Oy 974 AGAAGAGAGAGGCTGACCGTGTGAGCGTGGCGAACCGCTTACTTCAAGCTGTGCCCTGG 1033  
Db 2048 AGAAGAGAGAGGCTGACCGTGTGAGCGTGGCGAACCGCTTACTTCAAGCTGTGCCCTGG 2107  
Oy 1034 AGAGAGACTTCCGCAAGTACACCGGCTTACCAATCCCGAGCATCAACAGAGAGAGCCCGG 1093  
Db 2108 AGAGAGACTTCCGCAAGTACACCGGCTTACCAATCCCGAGCATCAACAGAGAGAGCCCGG 2167  
Oy 1094 GGAATCGCTACCAAGTACAGTGTGCGCCAGAGGCTGTGAAGGCGAGCCCGAGCATCTTCC 1153  
Db 2168 GGAATCGCTACCAAGTACAGTGTGCGCCAGAGGCTGTGAAGGCGAGCCCGAGCATCTTCC 2227  
Oy 1154 AGAGCAGCATGACCAAGATCTGTGAGCCCTTCCGCGCGCGCAACCCCGAGATGTGATCT 1213  
Db 2228 AGAGCAGCATGACCAAGATCTGTGAGCCCTTCCGCGCGCGCAACCCCGAGATGTGATCT 2287  
Oy 1214 ACCAGGCGCGCGTGTGAGAGGAGAGCATGTGAGATCGGCGAGAGCCCGGCAAGATG 1273  
Db 2288 ACCAGGCGCGCGTGTGAGAGGAGAGCATGTGAGATCGGCGAGAGCCCGGCAAGATG 2347  
Oy 1274 AGAGCTGCGAGAGCACTGTGCTGCTGTGGGCTTCAACACCCCGGCAAGAGAGACAGAG 1333  
Db 2348 AGAGCTGCGAGAGCACTGTGCTGCTGTGGGCTTCAACACCCCGGCAAGAGAGACAGAG 2407  
Oy 1334 AGAGGCCCCCTTCTGTGCCATGAGCTGCAACCCGAGCAAGTGAACCTGTGACGCCATCG 1393  
Db 2408 AGAGGCCCCCTTCTGTGCCATGAGCTGCAACCCGAGCAAGTGAACCTGTGACGCCATCG 2467

Oy 1394 AGCTGCCGAGAGAGAGAGCTGACCGTGAACGACATCCAGAGAGCTGTGGCAAGCTGA 1453  
Db 2468 AGCTGCCGAGAGAGAGAGCTGACCGTGAACGACATCCAGAGAGCTGTGGCAAGCTGA 2527  
Oy 1454 ACTGGGCGACCGAGATCTACCCCGGATCAAGTGTGGCGCAAGCTGTGCGCGG 1513  
Db 2528 ACTGGGCGACCGAGATCTACCCCGGATCAAGTGTGGCGCAAGCTGTGCGCGG 2587  
Oy 1514 GGGCGAGGCGCTTGACCGGACATGTGCGCCCTTACCGAGAGGCGCGAGCTGTGGCGCG 1573  
Db 2588 GGGCGAGGCGCTTGACCGGACATGTGCGCCCTTACCGAGAGGCGCGAGCTGTGGCGCG 2647  
Oy 1574 AGAACCGGAGATCTGTGCGCGAGCCCGTGTGACAGGCGTGTACTACGACCCCAAGAGACC 1633  
Db 2648 AGAACCGGAGATCTGTGCGCGAGCCCGTGTGACAGGCGTGTACTACGACCCCAAGAGACC 2707  
Oy 1634 TGTGTGCGGAGATCCAGAAAGAGGCGCACGACCAAGTGAACCTTACAGATCTTACAGAGC 1693  
Db 2708 TGTGTGCGGAGATCCAGAAAGAGGCGCACGACCAAGTGAACCTTACAGATCTTACAGAGC 2767  
Oy 1694 CTTTGAAGAACTTGAAGACCGGCGAGTACCGCAAGATGGCGACCGCGCCACCAAGAGAG 1753  
Db 2768 CTTTGAAGAACTTGAAGACCGGCGAGTACCGCAAGATGGCGACCGCGCCACCAAGAGAG 2827  
Oy 1754 TGAAGCAGCTGACCGAGGCGGTGTGCAAGAGATCGCATGAGAGCATGTGATCTGTGGGCA 1813  
Db 2828 TGAAGCAGCTGACCGAGGCGGTGTGCAAGAGATCGCATGAGAGCATGTGATCTGTGGGCA 2887  
Oy 1814 AGACCCCGCAATTCGCGCTTCCCATTCAGAGAGAGACTTGGAGACCTTGGTGAACCTGA 1873  
Db 2888 AGACCCCGCAATTCGCGCTTCCCATTCAGAAAGAGACTTGGAGAGACTTGGTGAACCTGA 2947  
Oy 1874 ACTGGCAGGCGCACTGTGAACCGCGAGTGGAGATGTGTGAACACCCCGCGCTGTGAAGC 1933  
Db 2948 ACTGGCAGGCGCACTGTGAATCCCGAGTGGAGATGTGTGAACACCCCGCGCTGTGAAGC 3007  
Oy 1934 TGTGTGACAGCTGTGAGAGAGAGCCATCATGTGCGCGCGAGACTTCTTACGTGAGCGGCG 1993  
Db 3008 TGTGTGACAGCTGTGAGAGAGAGCCATCATGTGCGCGCGAGACTTCTTACGTGAGCGGCG 3067  
Oy 1994 CCGCCAACCGGAGACCAAGATTCGCAAGGCGGCTTACGTGACCGACCGGAGCGCGAGCA 2053  
Db 3068 CCGCCAACCGGAGACCAAGATTCGCAAGGCGGCTTACGTGACCGACCGGAGCGCGAGCA 3127  
Oy 2054 AGATGTGAGCTTGAACCGGACCAACCAAGAGACCGAGCTGACGAGCATTCAGCTGG 2113  
Db 3128 AGATGTGAGCTTGAACCGGACCAACCAAGAGACCGAGCTGACGAGCATTCAGCTGG 3187  
Oy 2114 CCTGCAAGGACAGCGGACGAGAGTGAACATGTGACCGACAGCCAGTACGCTTGGGCA 2173  
Db 3188 CCTGCAAGGACAGCGGACGAGAGTGAACATGTGACCGACAGCCAGTACGCTTGGGCA 3247  
Oy 2174 TATATCAGGCGCACCGCGCAAGAGCGAGAGCGAGCTGTGAAACAGATCATTCAGAGAC 2233  
Db 3248 TATATCAGGCGCACCGCGCAAGAGCGAGAGCGAGCTGTGAAACAGATCATTCAGAGAC 3307  
Oy 2234 TATATCAGAGAGAGAGAGTGTACTGTGAGTGTGCGCGCACAGAGGCAATCGGCGGCA 2293  
Db 3308 TATATCAGAGAGAGAGAGTGTACTGTGAGTGTGCGCGCACAGAGGCAATTCGCGGCA 3367  
Oy 2294 ACAGAGCATTCAGACAAAGCTGTGAGCAAGGAGCATCCGCAAGGTGTCTTGTGACGAGCA 2353  
Db 3368 ACAGAGCATTCAGACAAAGCTGTGAGCAAGGAGCATCCGCAAGGTGTCTTGTGACGAGCA 3427  
Oy 2354 TGTATGGCGGACTGTGATCTTACAGTACATGAGACACTTGTACCTGTGGCAGCGCGGCC 2413  
Db 3428 TGTATGGCGGACTGTGATCTTACAGTACATGAGACACTTGTACCTGTGGCAGCGCGGCC 3487  
Oy 2414 CTAGATTCGATTTAAAGCTTCCCGGCGCTAGCACCGGT 2451  
Db 3488 CTAGATTCGATTTAAAGCTTCCCGGCGCTAGCACCGGT 3525

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RESULT 14
US-10-190-435-45
; Sequence 45, Application US/10190435
; Publication No. US20030143248A1
; GENERAL INFORMATION:
; APPLICANT: ZOR MEGEDE, Jan
; APPLICANT: BARNETT, Susan W.
; APPLICANT: LIAN, Ying
; APPLICANT: ENGELBRECHT, Susan
; APPLICANT: VAN RENSBURG, Estrelita J.
; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE C
; TITLE OF INVENTION: POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF
; FILE REFERENCE: P18133.003 / 2302-18133
; CURRENT APPLICATION NUMBER: US/10/190.435
; CURRENT FILING DATE: 2002-12-30
; NUMBER OF SEQ ID NOS: 319
; SOFTWARE: Patent In Ver. 2.0
; SEQ ID NO 45
; LENGTH: 2457
; TYPE: DNA
; ORGANISM: Artificial Sequence
; OTHER INFORMATION: Description of Artificial Sequence: p2Poliopt_C
US-10-190-435-45

Query Match 97.8%; Score 2403.4; DB 6; Length 2457;
Best Local Similarity 99.3%; Pred. No. 0;
Matches 2433; Conservative 0; Mismatches 6; Indels 12; Gaps 2;

QY 7 GCCACCATGCGCCGACGATGAGCCAGGCGCACCGCCCAACATCTGATGACGCGAC 66
D 1 GCCACCATGCGCCGACGATGAGCCAGGCGCACCGCCCAACATCTGATGACGCGAC 60
QY 67 AACTTCAAGGGGCGCCCAAGCGCATCATCAAGTCTTCAATGCGGCAAGAGGGCCATC 126
D 61 AACTTCAAGGGGCGCCCAAGCGCATCATCAAGTCTTCAATGCGGCAAGAGGGCCATC 120
QY 127 GCCGCAACTGCG 186
D 121 GCCGCAACTGCG 180
QY 187 CAGATGAAGAGCTGCGACCGAGCGCCAGGCCACTTTCTTCCGCGAGGACTTGGCTTCCC 246
D 181 CAGATGAAGAGCTGCGACCGAGCGCCAGGCCACTTTCTTCCGCGAGGACTTGGCTTCCC 240
QY 247 CAGGGCAAGCG 306
D 241 CAGGGCAAGCG 300
QY 307 GAGCTGAGGTCG 366
D 301 GAGCTGAGGTCG 360
QY 367 CTGAACCTTCCCGCAGATCACTCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCG 426
D 361 CTGAACCTTCCCGCAGATCACTCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCG 420
QY 427 CAGATCAAGAGGCGCTGCTGAGCACTCGGCGCGCGCGCGCGCGCGCGCGCGCG 486
D 421 CAGATCAAGAGGCGCTGCTGAGCACTCGGCGCGCGCGCGCGCGCGCGCGCGCG 480
QY 487 CTGCGCGCGCAAGTGAAGCGCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCG 546
D 481 CTGCGCGCGCAAGTGAAGCGCAAGATGATCGCGCGCGCGCGCGCGCGCGCGCG 540
QY 547 CAGTACGACAGATCTGATGAGATCTGCGCGCGCGCGCGCGCGCGCGCGCGCG 606
D 541 CAGTACGACAGATCTGATGAGATCTGCGCGCGCGCGCGCGCGCGCGCGCGCG 600
QY 607 GCGCCCAAGCG 666
D 601 GCGCCCAAGCG 660

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QY 667 AACTTCCCATGAGCCCGCATGAGACCGTGGCCCGTGAAGCTGAAGCCCGGATGACGGC 726
D 661 AACTTCCCATGAGCCCGCATGAGACCGTGGCCCGTGAAGCTGAAGCCCGGATGACGGC 720
QY 727 CCCAAGGTGAAGCAGTGGCCCTTGAACGAGGAGAAATCAAGGCGCTGACCGCATCTGC 786
D 721 CCCAAGGTGAAGCAGTGGCCCTTGAACGAGGAGAAATCAAGGCGCTGACCGCATCTGC 780
QY 787 GAGGAGATGAAGAGAGGGCGAAGATCAACCAAGATGCGGCCCGGAGAACCCCTTACAC 846
D 781 GAGGAGATGAAGAGAGGGCGAAGATCAACCAAGATGCGGCCCGGAGAACCCCTTACAC 840
QY 847 CCCGTTGGCATCAAGAAAGAGCAGACCAAGTGGCGCAAGTGTGACTTCCG 906
D 841 CCCGTTGGCATCAAGAAAGAGCAGACCAAGTGGCGCAAGTGTGACTTCCG 900
QY 907 GAGCTGAACAGGCGCACCGGACCTTCTGAGAGTCACTGAGGATCTCCCAACCCCGCC 966
D 901 GAGCTGAACAGGCGCACCGGACCTTCTGAGAGTCACTGAGGATCTCCCAACCCCGCC 960
QY 967 GGCCTGAAGAGAGAGAGCGGTGACCGTGTGAGAGTGGGGCGACGCTTCACTTCAAGT 1026
D 961 GGCCTGAAGAGAGAGAGCGGTGACCGTGTGAGAGTGGGGCGACGCTTCACTTCAAGT 1020
QY 1027 CCCCTGAGAGAGGACTTCCGCAAGTACCGCGCTTCAACCATCCCGCAGCATCAACAG 1086
D 1021 CCCCTGAGAGAGGACTTCCGCAAGTACCGCGCTTCAACCATCCCGCAGCATCAACAG 1080
QY 1087 ACCCGCGCATCCGCTTACAGTACCAAGTGTGCGCGCGCGCGCGCGCGCGCGCG 1146
D 1081 ACCCGCGCATCCGCTTACAGTACCAAGTGTGCGCGCGCGCGCGCGCGCGCGCG 1140
QY 1147 ATCTTCAAGAGCAGATGACCAAGATCTGAGAGCTTCCGCGCGCGCGCGCGCG 1206
D 1141 ATCTTCAAGAGCAGATGACCAAGATCTGAGAGCTTCCGCGCGCGCGCGCGCG 1200
QY 1207 GTGATCTACCA-----GGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1260
D 1201 GTGATCTACCAAGTACGAGACCTGTAGTGGGCGCGCGCGCGCGCGCGCGCGCG 1260
QY 1261 CGCGCCAAAGTTCAGAGAGCTGCGCAAGCATCTGTGGCTTCAACACCCCGAC 1320
D 1261 CGCGCCAAAGTTCAGAGAGCTGCGCAAGCATCTGTGGCTTCAACACCCCGAC 1320
QY 1321 AAGAGCAGCAAGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1374
D 1321 AAGAGCAGCAAGAGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1380
QY 1375 TGAACCGTGCAGCCCATGAGCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAG 1434
D 1381 TGAACCGTGCAGCCCATGAGCTGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAG 1440
QY 1435 AAGCTGTGGGCAAGTGAAGTGGGCGAGCGAGATCAACCCCGCATCAAGTGGCG 1494
D 1441 AAGCTGTGGGCAAGTGAAGTGGGCGAGCGAGATCAACCCCGCATCAAGTGGCG 1500
QY 1495 CTGTGAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1554
D 1501 CTGTGAAGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1560
QY 1555 GCCGAGCTGAGAGCTGCGCGAGAGACCGCGAGATCTTGGCGCGCGCGCGCGCG 1614
D 1561 GCCGAGCTGAGAGCTGCGCGAGAGACCGCGAGATCTTGGCGCGCGCGCGCGCG 1620
QY 1615 TACGACCCAGCAAGAGCTTGTGGCGAGATCCAGAGAGAGAGAGAGAGAGAGAG 1674
D 1621 TACGACCCAGCAAGAGCTTGTGGCGAGATCCAGAGAGAGAGAGAGAGAGAGAG 1680
QY 1675 TACGAGATCTACAGAGAGCGCTTCAAGAGCTTGAAGACCGGCAAGTACGCAAGTGGC 1734
D 1681 TACGAGATCTACAGAGAGCGCTTCAAGAGCTTGAAGACCGGCAAGTACGCAAGTGGC 1740

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QY 1735 ACCGCCACCAACGAGCTGAAAGCAGTGCACCGAGCCGTGCGAGAAATCCCATGAG 1794  
DB 1741 ACCGCCACCAACGAGCTGAAAGCAGTGCACCGAGCCGTGCGAGAAATCCCATGAG 1800  
QY 1795 AACCATCTGATCTGGGGGCAAGACCCCAAGTTCCCGCTGCGATCCAGAGAGACCTGG 1854  
DB 1801 AACCATCTGATCTGGGGGCAAGACCCCAAGTTCCCGCTGCGATCCAGAGAGACCTGG 1860  
QY 1855 GAGACCTGATGAGACGAGTACTGAGCAGGACCTGATCCCGAGTGGAGTTCTGTAAC 1914  
DB 1861 GAGACCTGATGAGACGAGTACTGAGCAGGACCTGATCCCGAGTGGAGTTCTGTAAC 1920  
QY 1915 ACCCCCCCTGATGAGTGTGTGTACAGCTGAGAGAGAGCCATCTCGCGCCGAG 1974  
DB 1921 ACCCCCCCTGATGAGTGTGTGTACAGCTGAGAGAGAGCCATCTCGCGCCGAG 1980  
QY 1975 ACCCTTCTAGTGAAGGCGCCGCAACCGGAGACCAAGATGCGCAAGGCGCGTACGAG 2034  
DB 1981 ACCCTTCTAGTGAAGGCGCCGCAACCGGAGACCAAGATGCGCAAGGCGCGTACGAG 2040  
QY 2035 ACCGACCGGGGCGGAGAGATCGTGAAGCTGACCGAGACCAACCAAGAGACCGAG 2094  
DB 2041 ACCGACCGGGGCGGAGAGATCGTGAAGCTGACCGAGACCAACCAAGAGACCGAG 2100  
QY 2095 CTGACAGGCAATCCAGCTGAGCTGACAGACAGCGGAGCGAGGTGAATCTGTACCGAC 2154  
DB 2101 CTGACAGGCAATCCAGCTGAGCTGACAGACAGCGGAGCGAGGTGAATCTGTACCGAC 2160  
QY 2155 AGCCAGTAAAGCCCTGAGGATCATTCAGGCGCCAGCCGAGCAAGAGCCAGAGCTGGT 2214  
DB 2161 AGCCAGTAAAGCCCTGAGGATCATTCAGGCGCCAGCCGAGCAAGAGCCAGAGCTGGT 2220  
QY 2215 AACCATGATCATGAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTGAGTGGCCGAGC 2274  
DB 2221 AACCATGATCATGAGAGCTGATCAAGAGAGAGAGTGTACTGAGCTGAGTGGCCGAGC 2280  
QY 2275 CACAGAGGATCGGCGGCAACGAGCAGATCGACAGCTGATGAGCAAGGAGCTCCGAG 2334  
DB 2281 CACAGAGGATCGGCGGCAACGAGCAGATCGACAGCTGATGAGCAAGGAGCTCCGAG 2340  
QY 2335 GTGCTGTTCTGAGAGGCAATCGATGCGGAGATGATGATCAACAGTCAATGAGCGACCTG 2394  
DB 2341 GTGCTGTTCTGAGAGGCAATCGATGCGGAGATGATGATCAACAGTCAATGAGCGACCTG 2400  
QY 2395 TACGTGGGAGCGGCGGCTTAAAGATCAATTAAGCTTCCCGGAGCTAGACCGGT 2451  
DB 2401 TACGTGGGAGCGGCGGCTTAAAGATCAATTAAGCTTCCCGGAGCTAGACCGGT 2457

## RESULT 15

US-10-190-305A-39  
Sequence 39, Application US/10190305A  
Publication No. US20030198621A1  
GENERAL INFORMATION:  
APPLICANT: ZUR MEGEDE, Jan  
APPLICANT: BARNETT, Susan  
APPLICANT: LIAN, Ying  
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING ANTIGENIC HIV TYPE B AND/OR  
TITLE OF INVENTION: TYPE C POLYPEPTIDES, POLYPEPTIDES AND USES THEREOF  
FILE REFERENCE: 2302-18702 / 18702.002  
CURRENT APPLICATION NUMBER: US/10/190,305A  
NUMBER OF SEQ ID NOS: 93  
SOFTWARE: PatentIn Ver. 2.0  
SEQ ID NO 39  
LENGTH: 2457  
TYPE: DNA  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: p2Polopt\_C  
US-10-190-305A-39

Query Match 97.8%; Score 2403.4; DB 6; Length 2457;

Best Local Similarity 99.3%; Pred. No. 0;  
Matches 2439; Conservative 0; Mismatches 6; Indels 12; Gaps 2;

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DB 1 GCCACCATGAGCGGAGCATGAGACGAGCAGACGAGCCATCTGATGAGCGACAC 60  
QY 67 AACTTCAAGAGGCCCAAGGCAATCAATGCTTCAATGCGGCAAGAGGCCCATC 126  
DB 61 AACTTCAAGAGGCCCAAGGCAATCAATGCTTCAATGCGGCAAGAGGCCCATC 120  
QY 127 GCCCGCAACTGCGGCGCCCGGCAAGAGGCTGTGAGTGGCGGCAAGAGGCCAC 186  
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QY 187 CAGATGAAGATGAGACCGAGCGGCAAGCTTCTTCCGAGAGACTGTGCTTCC 246  
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QY 367 CTGAACTTCCCGCAATCACTGTGAGCAGCCCGCTGTGAGATCAAGTGGCGG 426  
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 Job time : 1728.8 secs

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OM nucleic - nucleic search, using bw model

Run on: December 30, 2005, 08:57:15 ; Search time 294.946 Seconds  
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Sequence: 1 gtcgacgcacccatgcgcga.....gggctagcagcggtgaattc 2457

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 4172979 seqs, 262114271 residues

Total number of hits satisfying chosen parameters: 8345958

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%  
Listing first 45 summaries

Database : Published Applications NA.New.\*

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

| Result No. | Score  | Query Match | Length | ID                | Description        |
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| 1          | 1289.2 | 52.5        | 1689   | US-10-507-928-9   | Sequence 9, Appl1  |
| 2          | 1289.2 | 52.5        | 1689   | US-10-507-928-11  | Sequence 11, Appl1 |
| 3          | 1289.2 | 52.5        | 1689   | US-11-029-465-9   | Sequence 9, Appl1  |
| 4          | 1289.2 | 52.5        | 1689   | US-11-029-465-11  | Sequence 11, Appl1 |
| 5          | 1081.6 | 44.0        | 9719   | US-11-042-988-10  | Sequence 10, Appl1 |
| 6          | 156.2  | 6.4         | 17207  | US-10-519-531-8   | Sequence 8, Appl1  |
| 7          | 154.6  | 6.3         | 1503   | US-10-519-531-2   | Sequence 2, Appl1  |
| 8          | 141.4  | 5.8         | 1503   | US-10-507-928-3   | Sequence 3, Appl1  |
| 9          | 141.4  | 5.8         | 1503   | US-11-029-465-3   | Sequence 3, Appl1  |
| 10         | 99.8   | 4.1         | 3513   | US-10-858-730-142 | Sequence 142, App  |
| 11         | 95.2   | 3.9         | 2736   | US-10-858-730-38  | Sequence 38, Appl1 |
| 12         | 85.2   | 3.5         | 2010   | US-11-058-727-5   | Sequence 5, Appl1  |
| 13         | 85.2   | 3.5         | 2010   | US-11-08-389-5    | Sequence 5, Appl1  |
| 14         | 81.4   | 3.3         | 14172  | US-11-075-185-2   | Sequence 2, Appl1  |
| 15         | 80.6   | 3.3         | 1434   | US-11-075-185-57  | Sequence 57, Appl1 |
| 16         | 74.2   | 3.0         | 37507  | US-10-522-037-2   | Sequence 2, Appl1  |
| 17         | 73.6   | 3.0         | 1115   | US-11-143-986-7   | Sequence 7, Appl1  |
| 18         | 73.4   | 3.0         | 1386   | US-11-075-185-55  | Sequence 55, Appl1 |
| 19         | 72.4   | 2.9         | 3408   | US-10-858-730-40  | Sequence 40, Appl1 |
| 20         | 71.4   | 2.9         | 8730   | US-11-087-100-1   | Sequence 1, Appl1  |
| 21         | 71.4   | 2.9         | 8730   | US-11-087-084-1   | Sequence 1, Appl1  |
| 22         | 71.4   | 2.9         | 8730   | US-11-087-085-1   | Sequence 1, Appl1  |
| 23         | 71.2   | 2.9         | 1593   | US-10-858-730-138 | Sequence 138, App  |

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|----|------|-----|--------|---|--------------------|--------------------|
| 24 | 71   | 2.9 | 3711   | 6 | US-10-873-528-321  | Sequence 321, App  |
| 25 | 66.8 | 2.7 | 1590   | 6 | US-10-858-730-162  | Sequence 162, App  |
| 26 | 66.6 | 2.7 | 864    | 7 | US-11-179-411-26   | Sequence 26, Appl1 |
| 27 | 66.6 | 2.7 | 864    | 7 | US-11-175-766-26   | Sequence 26, Appl1 |
| 28 | 65.8 | 2.7 | 6264   | 7 | US-11-075-185-58   | Sequence 58, Appl1 |
| 29 | 65.8 | 2.7 | 78869  | 7 | US-11-075-185-51   | Sequence 1, Appl1  |
| 30 | 65.2 | 2.7 | 2310   | 7 | US-11-073-579-1    | Sequence 1, Appl1  |
| 31 | 63   | 2.6 | 2376   | 7 | US-11-056-621-3    | Sequence 3, Appl1  |
| 32 | 62.4 | 2.5 | 3832   | 6 | US-10-821-234-99   | Sequence 99, Appl1 |
| 33 | 62   | 2.5 | 1690   | 6 | US-10-667-295-204  | Sequence 204, App  |
| 34 | 61.8 | 2.5 | 4509   | 7 | US-11-087-100-5    | Sequence 5, Appl1  |
| 35 | 61.8 | 2.5 | 4509   | 7 | US-11-087-084-5    | Sequence 5, Appl1  |
| 36 | 61.8 | 2.5 | 4509   | 7 | US-11-087-085-5    | Sequence 5, Appl1  |
| 37 | 61.8 | 2.5 | 116856 | 7 | US-11-143-980-1    | Sequence 1, Appl1  |
| 38 | 61.4 | 2.5 | 1119   | 7 | US-11-143-980-11   | Sequence 11, Appl1 |
| 39 | 60.8 | 2.5 | 2319   | 6 | US-10-858-730-148  | Sequence 148, App  |
| 40 | 60.8 | 2.5 | 8651   | 6 | US-10-432-483-48   | Sequence 48, Appl1 |
| 41 | 59.8 | 2.4 | 6360   | 7 | US-11-056-470-2    | Sequence 2, Appl1  |
| 42 | 59.8 | 2.4 | 160226 | 7 | US-11-121-086-29   | Sequence 29, Appl1 |
| 43 | 58.8 | 2.4 | 2133   | 7 | US-11-143-980-13   | Sequence 13, Appl1 |
| 44 | 58.2 | 2.4 | 15720  | 7 | US-11-108-172-1058 | Sequence 1058, App |
| 45 | 57.8 | 2.4 | 1779   | 7 | US-11-135-855-1    | Sequence 1, Appl1  |

## ALIGNMENTS

RESULT 1  
US-10-507-928-9  
; Sequence 9, Application US/10507928  
; Publication No. US2005026024A1  
; GENERAL INFORMATION:  
; APPLICANT: PONDREMED LIMITED AND GLAXO GROUP LIMITED  
; TITLE OF INVENTION: ADJUVANT  
; FILE REFERENCE: N.882328 GCM  
; CURRENT APPLICATION NUMBER: US/10/507, 928  
; CURRENT FILING DATE: 2004-09-17  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 9  
; LENGTH: 1689  
; TYPE: DNA  
; ORGANISM: Artificial sequence  
; OTHER INFORMATION: nucleotide sequence of RT insert of p7077-RT3  
US-10-507-928-9

Query Match 52.5%; Score 1289.2; DB 6; Length 1689;  
Best Local Similarity 86.3%; Pred. 4.5e-200;  
Matches 1452; Conservative 0; Mismatches 218; Indels 12; Gaps 2;

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| QY | 672 | CCCCATCAGCCCATCGAGACCGTCCCGTGAAGCTGAAGCCCGCATGAGCGGCCCAA    | 731  |
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| QY | 732 | GGTGAAGCACTGGCCCTTGAACCGAGAGAAATCAAGGCGCCCTGACCGCATTCGCGAGA | 791  |
| DB | 66  | GGTGAAGCACTGGCCCTTGAACCGAGAGAAATCAAGGCGCCCTGATGAGATTCGACCGA | 125  |
| QY | 792 | GATGAGGAAGAGGAGGACATCAAGATCGGCGCCGAGAACCCCTACAAACCCCGCT     | 851  |
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| QY | 852 | GTTTCGCATCAGAGAGAGACCAAGTGGCGGCACTGGTGAATTCGCGAGCT          | 911  |
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| QY | 912 | GAAACAGCGCAACCGAGACTTCTGGAGGTGCAAGCTGGGATATCCCAACCCCGGCGCT  | 971  |
| DB | 246 | GAAACAGCGCAACCGAGACTTCTGGAGGTGCAAGCTGGGATATCCCAACCCCGGCGCT  | 305  |
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; TITLE OF INVENTION: ADJUVANT  
; FILE REFERENCE: N.86232B GCW  
; CURRENT APPLICATION NUMBER: US/10/507,928  
; CURRENT FILING DATE: 2004-09-17  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 11  
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; TYPE: DNA  
; ORGANISM: Artificial sequence  
; FEATURE:  
; OTHER INFORMATION: nucleotide sequence of the coding insert in p731-RT3  
US-10-507-928-11  
  
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Db 6 CCCCATCAAGTCCCATCGAGACCGTGCCTTGAAGCTGAAGCCCGGATGAGAGGCGCCCA 65  
QY 732 GGTGAAGCAGTGGCCCTGACCGAGAGAAATCAAGGCCCTGACCGCATCTGCGAGGA 791  
Db 66 GGTGAAGCAGTGGCCCTGACCGAGAGAAATCAAGGCCCTGAGAGATCTGACACGA 125  
QY 792 GATGGAAGAGAGGCGCAAGATCAAGATCGGCCCCGAGAAACCTTACAAACACCCCGT 851  
Db 126 GATGGAAGAGAGGCGCAAGATCAAGATCGGCCCCGAGAAACCTTACAAACACCCCGT 185  
QY 852 GTTCGCGATCAAGAGAAAGACAGCACCAAGTGGCGCAAGCTGTGTGAATCTTCCGCGAGCT 911  
Db 186 GTTCGCGATCAAGAGAAAGACAGCACCAAGTGGCGCAAGCTGTGTGAATCTTCCGCGAGCT 245  
QY 912 GAACAAAGCGCACCGAGACTTCTGGAGGTGACGCTGGGCTATCCCGACCGCGGCT 971  
Db 246 GAATTAAGCGGACCGAGATTTCTGGAGGTGACGCTGGGCTATCCCGACCGCGCT 305  
QY 972 GAAGAAGAAAGAGGCGTACCGTGTGACGCTGGGCGACGCTTACTTACGCTGCGCT 1031  
Db 306 GAAGAAGAAAGAGGCGTACCGTGTGACGCTGGGCGACGCTTACTTACGCTGCGCT 365  
QY 1032 GGAAGAGAGCTTCCGCAAGTACACGCGCTTACCATCCCGAGATCAACAGAGACCCC 1091  
Db 366 GGAAGAGAGCTTTAGAAAGTACACGCGCTTACCATCCCATCTATCAACAGAGACCCC 425

QY 1092 CCGCATCCGCTACAGTACACCTGCTGCCCGAGGGCTGGAAGGGCAAGCCCAAGCATCTT 1151  
DB TGGCATCAGATATCAGTATACAGCTCTCCCGAGGGCTGGAAGGGCTCTTCCCGCATTTT 485  
QY 1152 CCAGACAGCAGTACAGTACAGTCTGAGAGCCCTTCCGCGCCGCAACCCCGAGATCTGAT 1211  
DB 486 CCGAGACTCCATCAGAGATCTGAGAGCCGTTTCGAGACAGAACCCCGATTCGTCAAT 545  
QY 1212 CTACCA-----GGCCCCCTGTACGTGAGGCAAGCAGCTGAGATCGGCGAGCAGCCGCG 1265  
DB 546 CTACAGTATACAGTACAGCTGTACGTGGCTGTACAGCTGGAATGGGAGCATGGCAC 605  
QY 1266 CAGATTCAGAGAGCTGCGAGAGCACTGCTGCGCTGGGCTTCAACAACCCCGCAAGAA 1325  
DB 606 GAGATTCAGAGAGCTGAGGAGCATCTGAGATGGGCTGACCACTCCGCAAGAA 665  
QY 1326 GCAACAGAGAGAGCCCTTCTCTGCCCCAT-----CGAGCTGCAACCCCGCAAGTGGAG 1379  
DB 666 GCAATCAGAGAGAGCCCGCATTTCTGTGATGGGCTAGAGCTCCATCCGCAAGTGGAG 725  
QY 1380 CGAGCAGCCCATGAGCTGCGCGAGAGAGAGAGCTGAGACCTGTAACAGCATCCAGAGCT 1439  
DB 726 CGTACAGCTTATGCTCTCCCGAGAGAGAGAGCTGAGACCTGTAACAGCATCCAGAGCT 785  
QY 1440 GGTGGGCAAGCTGAACTGGGCGAGCCAGATCTACCCCGCATCAAGGTGCGCAAGCTGTG 1499  
DB 786 GGTGGGCAAGCTGAACTGGGCTAGCGAGATCTATCCCGGATCAAGGTGCGCAAGCTGTG 845  
QY 1500 CAGAGCTGCTGCGGCGCGAGAGCCCTGAGCAGATGCTGCTCCCTGACCGAGAGAGCGCA 1559  
DB 846 CAGAGCTGCTGCGGCGCGAGAGCCCTGAGCAGATGCTGCTCCCTGACCGAGAGAGCGCA 905  
QY 1560 GCTGAGCTGCGCGAGAGCCCGAGATCTGCGCGAGCCCGTGTGATCTAGCA 1619  
DB 906 GCTGAGCTGCGCGAGAGCCCGAGATCTGCGCGAGCCCGTGTGATCTAGCA 965  
QY 1620 CCCCAGCAGAGAGCTGTGCGCGAGATCTGCGCGAGCCCGTGTGATCTAGCA 1679  
DB 966 CCCCAGCAGAGAGCTGTGCGCGAGATCTGCGCGAGCCCGTGTGATCTAGCA 1025  
QY 1680 GATTCACAGAGAGCCCTTCAAGAACCTGAGAACCCCGCAAGTATGCCCAAGCTGCA 1739  
DB 1026 GATTCACAGAGAGCCCTTCAAGAACCTGAGAACCCCGCAAGTATGCCCAAGCTGCA 1085  
QY 1740 CCAACCAAGAGAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1799  
DB 1086 CCAACCAAGAGAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1145  
QY 1800 CGTATCTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1859  
DB 1146 CGTATCTGGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1205  
QY 1860 CTGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1919  
DB 1206 GTGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1265  
QY 1920 CCCCCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1979  
DB 1266 TCTCTGTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1325  
QY 1980 CTAGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2039  
DB 1326 CTAGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1385  
QY 2040 CCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2099  
DB 1386 CCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1445  
QY 2100 GGCATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2159  
DB 1446 GGCATTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1505

QY 2160 GTAGCCCTGGGAGATCATCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2219  
DB 1506 GTAGCCCTGGGAGATCATCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1565  
QY 2220 GATTCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2279  
DB 1566 GATTCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1625  
QY 2280 GGGCATCGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2339  
DB 1626 GGGCATCGGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1685  
QY 2340 GT 2341  
DB 1686 GT 1687

RESULT 3  
US-11-029-465-9  
; Sequence 9, Application US/11029465  
; Publication No. US20050256070A1  
; GENERAL INFORMATION:  
; APPLICANT: Braun, Ralph P.  
; APPLICANT: Thomsen, Lindy  
; APPLICANT: Van-Wely, Catherine  
; APPLICANT: Btli, Peter  
; TITLE OF INVENTION: Adjuvant  
; FILE REFERENCE: 031267-015  
; CURRENT APPLICATION NUMBER: US/11/029,465  
; CURRENT FILING DATE: 2005-01-06  
; NUMBER OF SEQ. ID NOS: 12  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 9  
; LENGTH: 1689  
; TYPE: DNA  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: nucleotide sequence of RT insert of p7077-RT3  
US-11-029-465-9

Query Match 52.5%; Score 1289.2; DB 7; Length 1689;  
Best Local Similarity 86.3%; Pred. No. 4.5e-200;  
Matches 1452; Conservative 0; Mismatches 218; Indels 12; Gaps 2;

QY 672 CCCCATCAGCCCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 731  
DB 6 CCCCATCAGCCCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 65  
QY 732 GGTGAAGCAGTGGCCCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 791  
DB 66 GGTGAAGCAGTGGCCCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 125  
QY 792 GATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 851  
DB 126 GATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 185  
QY 852 GTTCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 911  
DB 186 GTTCGCATCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 245  
QY 912 GAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 971  
DB 246 GAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 305  
QY 972 GAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1031  
DB 306 GAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 365  
QY 1032 GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1091  
DB 366 GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 425  
QY 1092 CGGATCCGCTACAGTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1151



Db 426 TGGCATCAGATATCACTACAAAGCTCTCCCCAGGGCTGGAAAGGCTCTCCGCCATTTT 485  
Qy 1152 CCAGAGCAGCATGACCAAGATCTGTGAGCCCTTCCGCGCCCGAACCCCGAATCTGTAT 1211  
Db 486 CCAAGCTCATTACCAAGATCTGTGAGCCGTTTGGAGACAGAAACCCCGATCTGTAT 545  
Qy 1212 CTACCA-----GGCCCCCTGTAGTGGCAGCCGACTGTGAGATGTGGCAGCAGCCGCG 1265  
Db 546 CTACAGTATCATGAGCAGCTGTACGTGGCTCTGACCTGGAAATGGGCGACATGCGAC 605  
Qy 1266 CAAGATTCAGAGCTGTGAGCAGCAGCTGTGCGCTGGGGCTTACCAACCCCGCAGAGAA 1325  
Db 606 GAAGATTGAGAGCTGAGCAGCAGCTGTGAGATGGGCTTACCACTTCGAGCAAGAA 665  
Qy 1326 GCACAGAAAGAGCCCCCTCTCTGCCCCAT-----CGAGCTCACCCCGCAGAAATGAGC 1379  
Db 666 GCATCAGAAAGAGCCCGCATCTCTGTGAGATGGGCTACAGCTCATCTCCGACAAATGAGC 725  
Qy 1380 CGTGCAGCCCATGAGCTGCGCGAGAAAGAGCTGAGCCTGTGAAGCATCCAGAAAGCT 1439  
Db 726 CGTGCAGCTTATCTGCTCTCCCGAAGAGCAGCTGACCTGTGAACGATCCAGAAAGCT 785  
Qy 1440 GGTGGCAGCTGAACTGGGCGCAGCAGATCTACCCCGCATCAAGGTGGCGCAGCTGT 1499  
Db 786 GGTGGCAGCTGAACTGAGGCTGAGCAGATCTATCCCGGATCAAGGTGGCGCAGCTGT 845  
Qy 1500 CAAGCTGCTGCGCGCGCCCAAGGCCCTTGAACCGACATCTGTCCTCTGACCGAGAGCGCG 1559  
Db 846 CAAGCTGCTGCGCGCGCCCAAGGCCCTTGAACCGAGTATCTCTCTGACCGAGAGCGCG 905  
Qy 1560 GCTGAGCTGGCCGAGAACCGAGATCTGTCCGAGACCCGTGACCGGCTGTATCA 1619  
Db 906 GCTGAGCTGGCTGAGAACCGAGATCTGTAAAGAACCCGTGACCGGCTGTATCA 965  
Qy 1620 CCCCAGCAAGAGCTGTGTGCGCGAGATCCAGAGAGAGCGCAGACCAAGTGAACCTTACCA 1679  
Db 966 CCCCCTCCAGAGCTGTGTGCGCGAGATCCAGAGAGAGCGCAGAGGAGATGAGATACCA 1025  
Qy 1680 GATCTACAGAGAGCCCTTCAAGAACTGTGAAGCCGAGATACCGCAAGTGTGCGACCGC 1739  
Db 1026 GATTTTACAGAGAGCCCTTCAAGAACTGTGAAGCCGAGATACCGCAGTGTGAGGCGC 1085  
Qy 1740 CCAACACCAAGAGCTGTGAAGAGCTGACGAGGCGGTGAGAAAGTGTGCGCATGTGAGCAT 1799  
Db 1086 CCAACACCAAGAGTGTGAAGAGCTGACGAGGCGGTGAGAAAGTGTGCGCATGTGAGCAT 1145  
Qy 1800 CGTATCTGTGGGCAAGACCCCAAGTTCGCGCTGCGCATCCAGAAAGAGACTGTGGAGAC 1859  
Db 1146 CGTATCTGTGGGCAAGACCCCAAGTTCAGCTGCTATCCAGAAAGAGACTGTGGAGAC 1205  
Qy 1860 CTGGTGAACGACTACTGAGCAGGCGCACCTGGATCCCGAGTGGAGTTCGTGAACACCC 1919  
Db 1206 GTGGTGAACGAAATTTTGGAGGCGCACCTGGATCCCGAGTGGAGTTCGTGAATACCC 1265  
Qy 1920 CCCCCTGTGAGAGCTGTGTGTAACAAGTGTGAGAGAGAGCCATCATCGCGCGGAGACCTT 1979  
Db 1266 TCCCTGTGTGAAGCTGTGTGTAACAAGTGTGAGAGAGAGCCATCATCGCGCGGAGACAT 1325  
Qy 1980 CTATGTGAGAGCGGCGCGCAACCGGAGAGCAAAATGTGGCAAGGCGCGCTGTGACCGA 2039  
Db 1326 CTATGTGAGAGCGGCGCGCAACCGGAGAGCAAAAGCTGGGAGAGCGCGGTGTGACCGAA 1385  
Qy 2040 CCGGAGCGGAGAGAGATGTGAGCTGTGACCGAGCAACCAACGAGAGAGCCGAGCTTGA 2099  
Db 1386 CCGGAGCGGAGAGAGATGTGACCGCTGTGACCGAGCAACCAACGAGAGAGCGAGCTTGA 1445  
Qy 2100 GGCATTCAGCTGTGCGCTGTGAGAGCAGCGGAGCGAGGTGAACATGTGACCGAGCA 2159  
Db 1446 GGCATTCATCTCGCTGTGAGAGACTCGGCTGTGAGGTGAACATGTGAGCGAGCA 1505  
Qy 2160 GTAGCGCTGTGGCATTCAGAGCGCCAGACCAAGAGAGAGCGAGCTGTGAGAACCA 2219  
Db 1506 GTAGCGCTGTGGCATTTATTCAGGCGCCAGACCGAGACCATGTGAGAGCGAGCTGTGAGAACCA 1565

Qy 2220 GATCATCCAGAGCTGATCAAGAGAGAGGTGTACCTGAGCTGGGTGCGCCGCCACAA 2279  
Db 1566 GATTTATCGAGAGCTGATCAAGAGAGAGGTGTACCTGAGCTGGGTGCGCCGCCACAA 1625  
Qy 2280 GGCATTCGCGCGCAACGAGCAGATGACAGCTGTGTGAGCAAGGCGATCCGAAAGTGT 2339  
Db 1626 GGCATTCGCGCGCAACGAGCAGATGACAGCTGTGTGAGCAAGGCGATTCGAAAGGTGT 1685  
Qy 2340 GT 2341  
Db 1686 GT 1687

RESULT 5  
US-11-042-988-10  
; Sequence 10, Application US/11042988  
; Publication No. US20050244818A1  
; GENERAL INFORMATION:  
; APPLICANT: SILICIANO, ROBERT  
; APPLICANT: ZHANG, HAILI  
; APPLICANT: ZHOU, YAN  
; TITLE OF INVENTION: SINGLE CELL ANALYSIS OF HIV REPLICATION CAPACITY AND  
; FILE REFERENCE: 62760 (71699)  
; CURRENT APPLICATION NUMBER: US/11/042, 988  
; CURRENT FILING DATE: 2005-01-25  
; PRIOR APPLICATION NUMBER: 60/540, 716  
; PRIOR FILING DATE: 2004-01-30  
; NUMBER OF SEQ ID NOS: 16  
; SOFTWARE: PatentIn Ver. 3.3  
; SEQ ID NO 10  
; LENGTH: 9719  
; TYPE: DNA  
; ORGANISM: Human immunodeficiency virus type 1  
US-11-042-988-10

Query Match 44.0%; Score 1081.6; DB 9; Length 9719;  
Best Local Similarity 67.9%; Pred. No. 1.3e-166;  
Matches 1610; Conservative 0; Mismatches 734; Indels 28; Gaps 6;

Qy 14 TGGCCGAGGCGATGAGCGAGGCGACCA---GCCCAACATCTGATGACGCGCAACT 70  
Db 1877 TGGCTGAGGCAATGAGCGCAAGTAAACAATTCAGCTACCTAATGATGACAGAGGCAATT 1936  
Qy 71 TCAAGGCGCCCAAGCGCATCATCAAGTCTTCAACTGCGGCAAGAGGCGCAATCGCCC 130  
Db 1937 TTAGGAACCAAAAGATTTGTAAGTGTTCATTTGTGCAAAAGAGGCGCACACAGCCA 1996  
Qy 131 GCAATGCGCGCGCGCGCGCGCAAGAGGCTGTGAGAGTGTGCGGCAAGAGAGGCGCAAGA 190  
Db 1997 GAATTTGCAAGGCGCGCGCGCGCGCAAGAGGCTGTGAGAGTGTGAGAGAGAGAGAGAGCA 2056  
Qy 191 TGAAGAGCTGACCGAGCGCGCGCAACTTTCTTCCGAGAGACTGTGCGCTTCCCGCAGG 250  
Db 2057 TGAAGATTTTACTGAGAGCAAGCTTA-TTTTTTAGGAGAGATCTGCTTCTTACAG 2115  
Qy 251 GCAAGGCGCGCGAGTTTCCCGAGAGAGAGAGCGCGCAACAGCCCAACCAAGCGCGCAGC 310  
Db 2116 GGAAGCGCAAGGAATTTTCTTCAAGAGCAGACAGAGCAACAGCCCAACAGAGAGAGC 2175  
Qy 311 TGCAGTGTGCGG-----CGACAAACCCCGCAGAGGCGCGGCGCGGCGCGAGCGCAAGGCA 364  
Db 2176 TTCAGGTCTGTGGGTGAGAGCAACAATCTCCCTTCAAGAGAGAGGCGCGGATGAGAGAGAA 2235  
Qy 365 -----CCCTGAATCTTCCCGAGATCACTGTGTGAGCGCGCGCGCTGTGAGCATCAAG 418  
Db 2236 CTGTATCTTTAATTTCTTCAAGTCACTTTTGTGCAACAGCCCTGTGTCAATTAAGA 2295  
Qy 419 TGGCGGCGAGATCAAGAGGCGCTGTGAGCAACGCGCGCGAGAGCAACCGTGTGAGAG 478  
Db 2296 TAGGGGGGCAACTAAAGAGCTTATTAATACAGAGAGAGATGATACAGTATTAGAGAG 2355



|    |      |                                                                 |      |
|----|------|-----------------------------------------------------------------|------|
| OY | 479  | GGATGAGCCTCCCGGCAAGTGGAAAGCCCAAGATGATCGGGGATGAGGGCTTACTCA       | 538  |
| Db | 2356 | AAATGAGTTTCCGAGGAAGATGGAAACCAAAAAATGATGGGGAAATTGGAGTTTATATCA    | 2415 |
| OY | 539  | AGTGGCCGACATACGACAGATCTCGATTCGAGATCTGGCGGCAAGAGGCCATCGGCACCG    | 598  |
| Db | 2416 | AAGTAAAGCAGTATGATCAGATCTCATATGAAAACTGTGGACATTAAGGCTATATGATACAG  | 2475 |
| OY | 599  | TGCTGATCGGCCCCCAACCCCGGTGAACATCATCGGCCGCAACATGCTGACCCAGCTGGGCT  | 658  |
| Db | 2476 | TATTATGATGAGACTACCTGCTCAACATAATTTGGAAGAAAATCTGTGACTCAGATTGGTT   | 2535 |
| OY | 659  | GCAACCTTGAACTTCCCCATCAAGCCCCATCGAGACCGTGGCCGTGAAGCTGAAGCCCGGCA  | 718  |
| Db | 2536 | GCACTTTAAATTTTCCCATTTAGCCCTTATTTGAGACTGTACCGATTAATTTAAAGCCAGGAA | 2595 |
| OY | 719  | TGAGACGGCCCCAAGGTGAAAGCAGTGGCCCTTGACCGAGAGAGAATCAAGGCCCTTGACCG  | 778  |
| Db | 2536 | TGGATGGCCCAAAAGTTAAACATGGCCATTGACAGAAAGAAAAATTAAGCATTTAGTAG     | 2655 |
| OY | 779  | CCATCTGCGAGAGATGGAGAAAGAGGCAAGATCAACAGATCGGCCCGAGAACCCCT        | 838  |
| Db | 2656 | AAATTTGTATACAGAGATGGAAAAAGGAAGGAAAAATTTCAAAAATTTGGGCTGAATATCAT  | 2715 |
| OY | 839  | ACAACACCCCCGTGTTCCGCATCAAGAAAGAAAGACAGACCAAGTGGCGCAAGCTGGTGG    | 898  |
| Db | 2716 | ACAAATATCTCCAGTATTTGCCATTAAGAAAAAGACAGTACTTAATTTGAGAAAAATTAATAG | 2775 |
| OY | 899  | ACTTCCGAGAGCTGAACAAGCGCACCCAGAGACTTCTGGGAGGTGACGTGGGACTCCGCC    | 958  |
| Db | 2776 | ATTTCAGGAACCTTATATAGAGAACTCAAGACTTCTGGGAAGTTCAATATGAAATACAC     | 2835 |
| OY | 959  | AACCCGCGGCGCTGAAGAAAGAAAGAGCGTGAACCGTGTGGACGTGGCGACGCGCTACT     | 1018 |
| Db | 2836 | ATCCCGGAGGGTTAAAAAAAGAAAAAATCAGTAAACAGTACGTGATGTGGGTGATCATATTT  | 2895 |
| OY | 1019 | TCAGGTGTCCTCTGAGACGAGACTTCCGCAAGTACACGCGCTTCAACATCCCGACATCA     | 1078 |
| Db | 2896 | TTTCAGTTCCCTTATATAGAAAGCTTCAGAAAGTATACGTCAATTTACATACCTTGTATAA   | 2955 |
| OY | 1079 | ACAACGAGAACCCCGGCAATCCGCTACAGTACCAACGTGCTGSCCCGAGGGCTGAAAGGCA   | 1138 |
| Db | 2956 | ACAAATGAGACACAGAGGATTTAGATATCAGTACATGTGCTTCCACAGGGATGGAAAGGAT   | 3015 |
| OY | 1139 | GCCCCAGCATCTTTCAGAGCAGCATGACCAAGATCTTGGAGCCCTTCCGCGCCGCAAC      | 1198 |
| Db | 3016 | CACCAAGCAATTTCCAAAGTAGCATGACAAAAATCTTAGAGCCTTTTAGAAAACAAATC     | 3075 |
| OY | 1199 | CCGAGATCGTATCTAAC-----GGCCCCCTGTACTGTGGGACGCACTCGANATCG         | 1252 |
| Db | 3076 | CAGACATGTTATCTATCAATACATATGATGATTTGTATGTAGGATCTTGACTTAAATATAG   | 3135 |
| OY | 1253 | GCGACACCGGGCCAAAGATTCGAGAGCGTGGCAAGACCTGCTGCGTGGGGCTTACCA       | 1312 |
| Db | 3136 | GCGACATAGAAACAAAAATAGGGAGCTGAGACAAACATCTGTGAAGTGGGAACTTACCA     | 3195 |
| OY | 1313 | CCCCCGAAGAAAGCACAGAAAGAGCCCCCTTCTCTGCCAT-----CGAGCTGACCC        | 1366 |
| Db | 3196 | CACCGAGCAAAAAAATCATAGAAAGAACCTCCATCTCTTTGGATGGGTTATGATCATCCATC  | 3255 |
| OY | 1367 | CCGACAAAGTGACCGGTGACGCCCATCGAGCTGCCCCGAGAGAGAGAGCTGACCGTGAAC    | 1426 |
| Db | 3256 | CTGATTAATTTGACAGATACAGCCTTATAGTGTGCCGAAAAAAGACAGCTGGACCTGTCAATG | 3315 |
| OY | 1427 | ACATCCAGAACTGTGTGGGCAAGCTGAATGTGGGCCAGGCAATCTAACCCCGGCAATCAAG   | 1486 |
| Db | 3316 | ACATACAGAAAGTTATGTGGGAAATTTGAATTGGGCAAGTCAAGTTTATCCCAAGGATTTAAG | 3375 |
| OY | 1487 | TGGCGCAGGTGTGCAAGCTGTGCGCGGCGCCAAAGCCCTTGACCGACATCTGTGCCCTGA    | 1546 |
| Db | 3376 | TAAAGCAATTAATATAAATCTCTTAAAGGAACCAAGACCTTAACAGAAATTAATACACTAA   | 3435 |
| OY | 1547 | CCGAGAGAGCCGAGCTGAGCTGGCCGAGAACCGGAGATCTGTGCGAGGCCGCTGACG       | 1606 |

|                                                        |      |                                                                 |      |
|--------------------------------------------------------|------|-----------------------------------------------------------------|------|
| Db                                                     | 3436 | CAGAGAAAGCAGAGCTAGACTGGCAGAAAAAGAGAGATTCTTAAAGAAACAGTACATG      | 3495 |
| Qy                                                     | 1607 | GCGTGTACTACAGACCCAGCAAGGACTGTGGCCGAGATTCAGAGACAGGCCAGACC        | 1666 |
| Db                                                     | 3496 | GAGTGATATTATGACCCATCAAAAAGACTTAATATAGCAAAATACAGAAACAGGGCC       | 3555 |
| Qy                                                     | 1667 | AGTGGACCTACAGATCTACCGAGAGGCCCTTCAAGAACTGGAAGACCGGCAAGTACGCCA    | 1726 |
| Db                                                     | 3556 | AATGACACTATCAAAATTTATTCMAAGGCATTTTAAAACTGAAAAACAGAAAAATATCCAA   | 3615 |
| Qy                                                     | 1727 | AGATGGCAGCCGCCCAACCAACGACGTGAAGCAGTCGACCGAGGCCGTGCAGAAAGATCG    | 1786 |
| Db                                                     | 3616 | GAAATGAGGGGTGCCCACTATATATGTATTAACAACTTAACAGAGCAGTGCAAAAATTA     | 3675 |
| Qy                                                     | 1787 | CCATGGAGAGCATGTGATCTGTGGGCAAGACCCCAAGTTCGCGCTGCCCATCCAGAGG      | 1846 |
| Db                                                     | 3676 | CCACAGAAAGCATAGTATATATGGGAAAGACTCTAAATTTAACTGCCATACAAAAGG       | 3735 |
| Qy                                                     | 1847 | AGACCTGGAGACCTGTGTGACCGACATATCTGGCAGGCCACTGTGATCCCGAGTGGAGT     | 1906 |
| Db                                                     | 3736 | AAATCATGGGAAACATGTGGGACAGAGTATTTGGCAAGGCACCTGGATTCCTGAGTGGAGT   | 3795 |
| Qy                                                     | 1907 | TCGTGAACACCCCCCCTGGTGAAGCTGTGTACAGCTGTGAAGAAAGAGCCCATCATCG      | 1966 |
| Db                                                     | 3796 | TTGTTAATACCCCTCCCTTGTAGTGAATTAATATGTATCCAGTTTAGAAGAAACCATATAGT  | 3855 |
| Qy                                                     | 1967 | GCGCCGAGACCTTGTACGTGACCGCGCCGCCAACCGCAGACCCAGATCGGCAAGGCCG      | 2026 |
| Db                                                     | 3856 | GAGCAGAAACCTTCTATATGTAGATGGGGCAGCTAACAGGAGACTTAATATAGAAAAACAG   | 3915 |
| Qy                                                     | 2027 | GCTACGTGACCGACCGGGCCCGGCAAGATCTGTGACCTTGAACCGAATCCACCAACGAG     | 2086 |
| Db                                                     | 3916 | GATATGTTACTTAATAGAGGAAACAAAAAGTTGTACCCCTTAATCTGACACCAACAAATGAG  | 3975 |
| Qy                                                     | 2087 | AGACCGAGCTGCAGGCCATTCAGCTGGGCCCTGCAGAGACAGCGGCGAGGGTGAACATCG    | 2146 |
| Db                                                     | 3976 | AGACTGATTTACAAAGCAATTTATCTAGCTTTGCAGGATTCGGGATTTAGAAATTAACATAG  | 4035 |
| Qy                                                     | 2147 | TGACCGACAGCAGTACGCGCCTGTGGCATCATCCAGGCCACGCCAGCAAGACGAGAGCG     | 2206 |
| Db                                                     | 4036 | TAAACGACTCAACATATATGCACTTAAGAAATCATTTAAGACCAACAGATCAAAAGTAACTAG | 4095 |
| Qy                                                     | 2207 | AGCTGTGAAACCAATCATTCAGACGACTGATCAAGAAAGAGAGAGTGTACTTGAGCTGGG    | 2266 |
| Db                                                     | 4096 | AGTTAGTCAATCAATATATATAGAGCATTTAAATAAAAAGAAAGGTCTATCTGGCATGGG    | 4155 |
| Qy                                                     | 2267 | TGCCCGCCCAACAAAGGACATGGCGGCGCAACGACGATCGAACAAGCTGTGAGCAAGGCA    | 2326 |
| Db                                                     | 4156 | TACCAACACACAAAGAAATTTGGAGAAATGAAACAAGTATTAATTTAGTCACTGTGGAA     | 4215 |
| Qy                                                     | 2327 | TCCGCAAGTGTCTGTCTCTGACCGCATTCAT                                 | 2358 |
| Db                                                     | 4216 | TCAGGAAAGTACTATTTTATAGATGAATAGAT                                | 4247 |
| RESULT 6                                               |      |                                                                 |      |
| US-10-519-531-8                                        |      |                                                                 |      |
| Sequence 8, Application No.10519531                    |      |                                                                 |      |
| Publication No. US20050244429A1                        |      |                                                                 |      |
| GENERAL INFORMATION:                                   |      |                                                                 |      |
| APPLICANT: Folks, Thomas M.                            |      |                                                                 |      |
| TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR |      |                                                                 |      |
| FILE REFERENCE: 14114.0373U2                           |      |                                                                 |      |
| CURRENT APPLICATION NUMBER: US/10/519,531              |      |                                                                 |      |
| CURRENT FILING DATE: 2004-12-27                        |      |                                                                 |      |
| PRIOR APPLICATION NUMBER: PCT/US03/20325               |      |                                                                 |      |
| PRIOR FILING DATE: 2003-06-27                          |      |                                                                 |      |
| PRIOR APPLICATION NUMBER: 60/392,630                   |      |                                                                 |      |
| PRIOR FILING DATE: 2002-06-27                          |      |                                                                 |      |
| NUMBER OF SEQ ID NOS: 8                                |      |                                                                 |      |
| SOFTWARE: FastSeq for Windows Version 4.0              |      |                                                                 |      |
| SEQ ID NO 8                                            |      |                                                                 |      |

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; LENGTH: 17207
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:/note =
US-10-519-531-8
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Query Match 6.4%; Score 156.2; DB 6; Length 17207;
Best Local Similarity 66.7%; Pred. No. 2.5e-17;
Matches 289; Conservative 0; Mismatches 128; Indels 16; Gaps 4;
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QY 14 TGGCCGAGGCGCATGAGCCAGGCCACCA---GGCCCAACATCTTGATGACGGCAGCAACT 70
DB 13954 TGGCTGAAAGCAATGAGCCAGTAAACAAATCCAGCTACATATGATACGAAAGGCAATT 14013
QY 71 TCAGAGGCGCCCAAGCGCATCATGAGCTTCAACTGCGGCAAGAGGCGCATGCGCC 130
DB 14014 TTGGAACCAAAAGAAAGACTGTTAAGTTGTTCAATTTGCGCAAGAGGCGCATAGCCA 14073
QY 131 GCAACTGCCGCGCGCCCGCCGCAAGAGGCGTGTGAAAGTGCAGAGAGGCGCCACCA 190
DB 14074 AAATTTGCAAGGCGCCCTAGAGAAAGGCGTGTGAAATGTGAAAGAGACACCAAA 14133
QY 191 TGAAGACTGACACCGAGCGCCAGGCGCACTTTCTTCGCGAGACCTGCGCTTCCCGCAGG 250
DB 14134 TGAAGATTGTACTGAGAGACAGGCTAA-TTTTTTAAAGGAGAACTTGGCCCTTCCCAAG 14192
QY 251 GCAAGGCGCGCGCATGTTCCCGAGAGAGAAACCGCGCAACAGCCCAACAGCGCGAGC 310
DB 14193 GGAAGGCGAGGAAATTTTCTTCAAGAGCAACAGAGCAACAGCCCAACAGAGAGAGC 14252
QY 311 TGCAGGTGCGCGG-----CGACAAACCCCGCAGAGCGCGCGCGCCAGCGGCA 364
DB 14253 TTCAAGTTTGGGAGAGAGACAACTCCTCTCAGAGAGAGAGCGCGCATATGACAAAGAA 14312
QY 365 -----CCCTGAACCTTCCCGCAGATCACTGTGCGAGCGCGCCCTGTGATCAGC 418
DB 14313 CTGATCTCTTAACTTCCCTCAGATCACTCTTGGCGAGCAACCCCTGTGCAATATCAA 14372
QY 419 TGGCGCGCGCAGAT 431
DB 14373 GGGGAAAGTGACAT 14385
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RESULT 7

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US-10-519-531-2
; Sequence 2, Application US/10519531
; Publication No. US20050244429A1
; GENERAL INFORMATION:
```

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; APPLICANT: Polks, Thomas M.
; TITLE OF INVENTION: LIVE REPLICATING SPUMAVIRUS VECTOR
; FILE REFERENCE: 14114.037302
; CURRENT APPLICATION NUMBER: US/10/519,531
; CURRENT FILING DATE: 2004-12-27
; PRIOR APPLICATION NUMBER: PCT/US03/20325
; PRIOR FILING DATE: 2003-06-27
; PRIOR APPLICATION NUMBER: 60/3392,630
; PRIOR FILING DATE: 2002-06-27
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 1503
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:/note =
US-10-519-531-2
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Query Match 6.3%; Score 154.6; DB 6; Length 1503;
Best Local Similarity 67.6%; Pred. No. 4.9e-17;
Matches 282; Conservative 0; Mismatches 119; Indels 16; Gaps 4;
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QY 14 TGGCCGAGGCGCATGAGCCAGGCCACCA---GGCCCAACATCTTGATGACGGCAGCAACT 70
DB 1088 TGGCTGAAAGCAATGAGCCAGTAAACAAATCCAGCTACATATGATGAGAAAGGCAATT 1147
QY 71 TCAGAGGCGCCCAAGCGCATCATGAGCTTCAACTGCGGCAAGAGGCGCATGCGCC 130
DB 1148 TTAGGAACCAAGAAAGAAAGACTGTTAAGTTTCAATTTGCGCAAGAGGCGCATAGCCA 1207
QY 131 GCAACTGCCGCGCGCCCGCCGCAAGAGGCGTGTGAAAGTGCAGAGAGGCGCACCA 190
DB 1208 AAATTTGAGCGCGCCCTAGAGAAAGGCGTGTGAAATGTGAAAGAGAGACACCAAA 1267
QY 191 TGAAGACTGACACCGAGCGCAAGCGCACTTCTTCGCGAGAGACTGCGCTTCCCGCAGG 250
DB 1268 TGAAGATTGTACTGAGAGACAGGCTAA-TTTTTTAAAGGAAATCTGCGCTTCCCAAG 1326
QY 251 GCAAGGCGCGCGAGTTCCCGAGAGAGAAACCGCGCAACAGCCCAACAGCGCGAGC 310
DB 1327 GGAAGGCGAGGGAATTTTCTTCAAGAGCAGACAGAGCCCAACAGCCCAAGAGAGAGC 1386
QY 311 TGCAGGTGCGCGG-----CGACAAACCCCGCAGAGCGCGCGCGCGCGCATAGGCA 364
DB 1387 TTCAAGTTTGGGAGAGAGACAACTCCTCTCAGAAAGAGAGAGCGCATATGACAAAGAA 1446
QY 365 -----CCCTGAACCTTCCCGCAGATCACTGTGCGAGCGCGCCCTGTGATGATCA 415
DB 1447 CTGATCTCTTAACTTCCCTCAGATCACTTTTGGAGAGAGAGCCCTGTGCAATATCAA 1503
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RESULT 8

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US-10-507-928-3
; Sequence 3, Application US/10507928
; Publication No. US2005026024A1
; GENERAL INFORMATION:
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; APPLICANT: POWDERED LIMITED AND GLAXO GROUP LIMITED
; TITLE OF INVENTION: ADJUVANT
; FILE REFERENCE: N.883328 GCM
; CURRENT APPLICATION NUMBER: US/10/507,928
; CURRENT FILING DATE: 2004-09-17
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 1503
; TYPE: DNA
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: nucleotide sequence of p55 gag insert in p5agoptprp2
US-10-507-928-3
```

```

Query Match 5.8%; Score 141.4; DB 6; Length 1503;
Best Local Similarity 69.0%; Pred. No. 6.6e-15;
Matches 223; Conservative 0; Mismatches 96; Indels 4; Gaps 2;
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```

QY 14 TGGCCGAGGCGCATGAGCCAGGCCACCA---CGACAGCGCGCAACATCTGATGAGCGAGCAACT 70
DB 1088 TGGCCGAGGCGCATGAGCCAGGAGTGAACCTCCGCAACATCATATGATGAGAGGAACT 1147
QY 71 TCAGAGGCGCCCAAGCGCATCATGAGCTTCAACTGCGGCAAGAGGCGCATATGCGCC 130
DB 1148 TCGGCAATCAGCGGAAATGCTGAAGTTTCAATTTGCGGCAAGAGAGGTCATACCGCC 1207
QY 131 GCAACTGCGCGCGCCCGCCGCAAGAGGCGTGTGAAAGTGCAGAGAGGCGCAACCA 190
DB 1208 GCAACTGTGCGGCGCCCTAGAGAAAGAGGCTGTGAAAGTGCAGAGAGAGAGACCA 1267
QY 191 TGAAGACTGACACCGAGCGCGCAAGCGCACTTCTTCGCGAGAGACTGCGCTTCCCGCAGG 250
DB 1268 TGAAGACTGTACGAAAGACAGGCGCA-TTTTCTTGAAGAAATTTGCGAGCTTACAG 1326
QY 251 GCAAGGCGCGGAGTTCCCGAGAGAGAAACCGCGCAACAGCCCAACAGCGCGAGC 310
DB 1327 GGGAGACTGTATTTCTTCTGCAAGAGAGCGCGAGCCAGCCCGCCCTGAGAGAAATCC 1386
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```
QY 311 TGCAGGTGCGCGCGACACCCC 333
Db 1387 TTCAGGTCCGAGTGGAGACAC 1409

RESULT 9
US-11-029-465-3
; Sequence 3: Application US/11029465
; Publication No. US20050256070A1
; GENERAL INFORMATION:
; APPLICANT: Braum, Ralph P.
; APPLICANT: Thomsen, Lindy
; APPLICANT: Van-Wely, Catherine
; APPLICANT: Brl, Peter
; TITLE OF INVENTION: Adjuvant
; FILE REFERENCE: 033267-015
; CURRENT APPLICATION NUMBER: US/11/029,465
; CURRENT FILING DATE: 2005-01-06
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 1503
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: nucleotide sequence of the p55 gag insert in
; US-11-029-465-3

Query Match 5.8%; Score 141.4; DB 7; Length 1503;
Best Local Similarity 69.0%; Pred. No. 6.6e-15;
Matches 223; Conservative 0; Mismatches 96; Indels 4; Gaps 2;

QY 14 TGGCGAGGCCATGACCCAG--CCACCAAGCCCAATCTGTATGACGCCGCAACT 70
Db 1088 TGGCCGAAAGCATGAGCCAGGTGACGAACCTCCGCAACATCATGATGACAGAGGGAAGCT 1147

QY 71 TCAGAGGCCCCCAAGCCCATCATCAAGTCTTCACTGCGGCAAGAGGCGCAATGAGGCC 130
Db 1148 TCAGCAATAGCGGAAGATCTGTAAGTGTTCATTTGCGGCAAGAGGCGTATACCGCCC 1207

QY 131 GCAACTGCGCGCGCGCGCGCGCGCAAGAGGCGTCTGGAAGTGGCGCAAGAGGCGCAACA 190
Db 1208 GCACTGTGCGCGCGCGCGCGCGCGCAAGAGGCGTGTGGAAGTGGCGCAAGAGGCGCAACA 1267

QY 191 TGAAGACTGACCGAGCGCGCGCAACTCTTCCGCGAGACTGCGCTTCCCGCAAG 250
Db 1268 TGAAGACTGTATACAGACGACAGGCCAA--TTTCTTGAAAGATTGGCCGAGCTACAA 1326

QY 251 GCAGAGCGCGCGAGTTCCTCCAGGACGACGACGCGCCCAACGCCCAACGCGGAGC 310
Db 1327 GGGAGACTGTGTATTTCTTGGCAAGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1386

QY 311 TGCAGGTGCGCGCGCGACACCCC 333
Db 1387 TTCAGGTCCGAGTGGAGACAC 1409

RESULT 10
US-10-858-730-142
; Sequence 142: Application US/10858730
; Publication No. US2005025568A1
; GENERAL INFORMATION:
; APPLICANT: Bailey, Richard B.
; APPLICANT: Blomquist, Paul
; APPLICANT: Doten, Reed
; APPLICANT: Driggers, Edward M.
; APPLICANT: Madden, Kevin T.
; APPLICANT: O'Leary, Jessica
; APPLICANT: O'Toole, George
; APPLICANT: Trueheart, Joshua
; APPLICANT: Walbridge, Michael J.
```

```
; APPLICANT: Yorgey, Peter S.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID
; FILE REFERENCE: 14184-030001
; CURRENT APPLICATION NUMBER: US/10/858,730
; CURRENT FILING DATE: 2004-06-01
; PRIOR APPLICATION NUMBER: US 60/475,000
; PRIOR FILING DATE: 2003-05-30
; PRIOR APPLICATION NUMBER: US 60/551,860
; PRIOR FILING DATE: 2004-03-10
; NUMBER OF SEQ ID NOS: 364
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 142
; LENGTH: 3513
; TYPE: DNA
; ORGANISM: Streptomyces coelicolor
; US-10-858-730-142

Query Match 4.1%; Score 99.8; DB 6; Length 3513;
Best Local Similarity 43.6%; Pred. No. 3.3e-08;
Matches 959; Conservative 0; Mismatches 1182; Indels 60; Gaps 9;

QY 203 CCGAGCGCCAGGCCCACTTTCTCCGAGAGACTGACTTCCCGCGCAAGGCCCGCG 262
Db 857 CCGAGCGCACGAGACCTTCTGTCGCGAGTACGCGCTGTCCTGTGCGGCTGCTGCG 916

QY 263 AGTTCGCCAGGAG 322
Db 917 GCACACGCGCGAG 976

QY 323 GCGACACCCCGCGAGCGAGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 379
Db 977 CAGGAGCG 1036

QY 380 AGATCACTCTGTGCGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 433
Db 1037 AGGACACCTCTCACTGCGCGCATGCGAGCGAGCGAGCGAGCGAGCGAGCGAGCGAG 1096

QY 434 AGGAGCG 493
Db 1097 GCGAGCG 1156

QY 494 GCAAGTGAAGCGCGAGATGATCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 553
Db 1157 GCGAGCG 1216

QY 554 ACCAGATCTGATCGAGATCTGCGCGCGAGAGAGCGCATCGGACCGTGTGATCGGCC 613
Db 1217 ACATGAGAGAACTGCG 1276

QY 614 CCGCGGTGAACATCATCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 673
Db 1277 CCACCGAGGTGACGTCATCTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 1336

QY 674 CCATGAGCG 733
Db 1337 ACTCGGTCACTACAG 1396

QY 734 TGAAGCACTGCG 793
Db 1397 TCGCCCGGAGAGACG 1456

QY 794 TGAAG 853
Db 1457 GCACCGCGCGAG 1516

QY 854 TCGCATCAAG 913
Db 1517 GGGGATTCACAGAGTCCGACATCTCTGTGAGCTGACCTTCAACATCTGACACCGAGCG 1576

QY 914 ACAAGCGACCCAGAGACTTCTGAGAGGTGAGAGTGGAGATCCCGCACCGCGCGCGCTGA 973
Db 1577 AGGAGAGTCCGCGCAAG 1636
```

QY 974 AGAAGAAGAGAGCTGACCGTGTGAGACGTGGCGACCGCTTACCTTCAAGCTGCCCTTGG 1033  
 DB 1637 GCCACCCGACGTCGACGACGCTGCTGTGAAACATCTCTTCCGCTCAACCCGG 1696  
 QY 1034 ACGAGAGCTTCCGCAAGTACACGCTTTCACCATCCCAAGATCAA---CAAGAAACC 1090  
 DB 1697 CCGCCCGCATCTCTCTCAATCTCGTCTTCTTCAGCAAGATCGTCAAGGCGGCTTGACT 1756  
 QY 1091 CCGGCACTCCGCTTCAAGTACAGTGTGCGCCCAAGGCTGAAAGGCGAGCCAGCATCT 1150  
 DB 1757 CGGCACTGTGACGCGAGCAAGATCTTGCC-----GATGCGCCCGTTGACGAGG 1807  
 QY 1151 TCAGAGCAGCATGATACCAAGATCTGTAGGCTTTCGCGCCCGCAACCCCGAGATGTGA 1210  
 DB 1808 AGCAGGTACACCGCCCTGATCTGATCTACGACCGCGCGAGAGGCTTACGACCCCG 1867  
 QY 1211 TCTAACAGGCCCCCTGTACGTGGGACGCACTTGAGATCGGCAAGACCGGCGCAAGA 1270  
 DB 1868 TGCAAAAGCTCATGCAAGCTCTTGCAGGGCGCCACCCGCAAGTGTGTAAGGCTTCCAAAG 1927  
 QY 1271 TCAGAGAGCTGGCGAAGCATCTGTGCGCTGGGGCTTACACACCCCGCAAGAAAGCAC 1330  
 DB 1928 CCGAGGAATGGCGCCCTCCGCTGGAGAGCGCTTCAAGCGCCGATCATGACGGCG 1987  
 QY 1331 AGAAGAGCCCCCTTCTCTGCTCCATCGAGCTGCACCCCGCAAAAGTGAACGTCAGCCCA 1390  
 DB 1988 AGAAGGAACGGCTCTGAAACAGGACCTTCAACAGAGCGCTTCCGGAGCG----- 2033  
 QY 1391 TCGAGCTGCCCGAAGAGAGCTGAAACCGTGAACGACATTCAGAACTGTGTGGCAAGC 1450  
 DB 2034 -CCGGGCTTCGAGANTGTCAACGACACCTGTCTGACGAGTATGAAGTGTGTGGCAAGC 2092  
 QY 1451 TGAATGGGCGCAGCAGATCTAACCCGCGCAATCAAGTGGCGCAGCTGTGCAAGCTGTGC 1510  
 DB 2093 TGTTCGGCTCCGCGCAATGCAAGTGTGCGCTTCTGCTCAAGTGTGCTGCGGAGTCA 2149  
 QY 1511 GCGGCGCAAGGCGCTTGCACGACATCTGTGCTGACCGAGAGGCGGAGCTGAGCTGG 1570  
 DB 2150 AGACCGGGGTGGCC-----ACCTGAGACCGGCACTGAGAAACCGACGACGA----- 2198  
 QY 1571 CCGAAGAACCGGAGATCTGTGCGGACCGCTGTGACCGGCTGTACTAGACCCCAAG 1630  
 DB 2199 -CGGCAAGGGGACATGCTGTGCGGACCGCTGCGGCGGAGGTCAACGATCCGCAAGA 2257  
 QY 1631 ACTGTGTGGCGAAGATCCAGAAAGAGGGCCACGACAGTGAACCTTACAGATTTAACAGG 1690  
 DB 2258 ACTTCGTGACATGATCTGTTCACCAAGGCTTCAAGTGTCAACTTGGCATCAAGC 2317  
 QY 1691 AGCCCTTCAAGAACCTGAAAGACCGGCAAGTACGCCAAGATCGGACCGCCACACCAAG 1750  
 DB 2318 AGCCCGTCTCGGCGATCTGTGAAGGGCGGACGAGACCGGGCGAGCGTCAATCGGCAATGT 2377  
 QY 1751 ACGTGAACGACGTGACCGAGGCGGTGACGAAGATGCGCATGAGAGCATCTGTATCTGGG 1810  
 DB 2378 CCGGCGTCTCTGTCAAGTCCACGCGTATCATGAAGAAACCTGAGGAGCTGAAACGAGC 2437  
 QY 1811 GCAAGACCCCAAGTTCCGCTGCGCCATCCAGAAAGGACCTGGGAGCATCTGTGAGACG 1870  
 DB 2438 GCAAGCTGGCGCGCATACCGGATCTTCGGGCGGCGCGCTTCAACGAGGCGCTTACG 2497  
 QY 1871 ACTACTGCGAGGCACTGTATCCCGAGTGGGAGTTGATGAACACCCCGCTGCTGTGA 1930  
 DB 2498 TCGAACAGAGCTGTGACAGATCTACAGAGGAGTCCGTAAGCCCGCGACGCTTTCG 2557  
 QY 1931 AGCTGTGTACCAAGCTGAGAAAGAGCCCATCATGTGGCGCGAGACCTTTTACGTGAGC 1990  
 DB 2558 AGGGCTGCGCTCATGGA-----CGCCTCATGTGGCATCAAGGCGCGCGCTGCGC 2608  
 QY 1991 GCGCGCGCAACCGGACGACCAAGATCGGCAAGGCGGCGCTAGTGAACGACGCGGCGCG 2050  
 DB 2609 GCGCAAGCTGCGGAGCTGAAGACAGCGCGGCGGCGCGCGCCACCTGTGAGATGACG 2668

QY 2051 AGAAGATGTGAGCCTGACCGAGACCAACCAACGAGACCGAGCTGAGCCATCAGC 2110  
 DB 2669 ACGGCCCGGAGAAAGGCCACGTCCTGCTCCGAGCTGCGCCACCGAACCCGGTCCGAGCC 2728  
 QY 2111 TGGCCCTGACAGACAGCGGACAGAGTGAACATGTGTGACCGACAGCTAGTACGCTTGG 2170  
 DB 2729 CGGCTTCCGCGGACACCGCGTGTGTGAGAGGATTCAGAGTCAAGAGTACGCTCTTGGC 2788  
 QY 2171 GCATCATTCAGGCGCCAGCCCGACAGAGGAGACGATGTGTGAACAGATCATGAGC 2230  
 DB 2789 TCGACGAGGCGCGCTTTCAGAGGCGCAAGTGGGCTTCAAGACGCGCCGACCGGCGAGG 2848  
 QY 2231 AGTGATTCAGAAAGAGAGGTGTACTTGAGCTGTGGTCCCGCCCAAGAGGATCGGCG 2290  
 DB 2849 GACCTTCTACGAGAACTGTGTGATCCGAGGCGCGCGCTGCGGCGCTGTCTCG 2308  
 QY 2291 GCNACGAGAGATCGACCAAGCTGTGAGCAAGGCGATCCGCAAGTGTCTTCTTGAAGC 2350  
 DB 2909 ACCGGCTCCAGAGAGGACCACTTTTGAAGCGCGCGTGTCTACGCTACTTCCCTGCG 2368  
 QY 2351 GCATCATGCGCGCATCTGTATTTACAGATGACATGACAGC 2391  
 DB 2969 TCTCAAGGACGACGAGCTGATGTCTCGACGACGACGCGC 3009

RESULT 11  
 US-10-858-730-38  
 ; Sequence 38, Application US/10858730  
 ; Publication No. US2005025568A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Bailey, Richard B.  
 ; APPLICANT: Blomquist, Paul  
 ; APPLICANT: Doten, Reed  
 ; APPLICANT: Driggers, Edward M.  
 ; APPLICANT: Madden, Kevin T.  
 ; APPLICANT: O'Leary, Jessica  
 ; APPLICANT: O'Toole, George  
 ; APPLICANT: Trueheart, Joshua  
 ; APPLICANT: Walbridge, Michael J.  
 ; APPLICANT: Yorgey, Peter S.  
 ; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR AMINO ACID  
 ; FILE REFERENCE: 14184-030001  
 ; CURRENT APPLICATION NUMBER: US/10/858,730  
 ; PRIOR FILING DATE: 2004-06-01  
 ; PRIOR APPLICATION NUMBER: US 60/475,000  
 ; PRIOR FILING DATE: 2003-05-30  
 ; PRIOR APPLICATION NUMBER: US 60/551,860  
 ; PRIOR FILING DATE: 2004-03-10  
 ; NUMBER OF SEQ ID NOS: 364  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 38  
 ; LENGTH: 2736  
 ; TYPE: DNA  
 ; ORGANISM: Streptomyces coelicolor  
 ; US-10-858-730-38

Query Match 3.9%; Score 95.2; DB 6; Length 2736;  
 Best Local Similarity 43.9%; Pred. No. 1.8e-07;  
 Matches 605; Conservative 0; Mismatches 758; Indels 15; Gaps 4;  
 QY 30 CCAAGGCAACGAGCCCAACATCTCTGATGACGCGACGACAACTTCAAGGCGCCCAAGCGCAT 89  
 DB 798 CGACACGCGCATCAACGACGCGCTGAGATGATGACAGCTGCGGCTTCTCTTCCAA 857  
 QY 90 CATCAAGTGTCTTCAACTGCGGCAAGAGGCGCAATCGCCGCAACTTCCGCGCCCGCCG 149  
 DB 858 CTCAATCGGATACCGCGGTGCGACGAGGAATCTGCTGCTTCCAGGCGGACCTTGA 917  
 QY 150 CAAAGAGGCTGTGGAAGTGGCGCAAGAGAGGCCCAACGATGAAGACTGACCGAGCG 209  
 DB 918 ACGCTCCCGGATACAGCCCGCTACAAAGCGCTTCAAGCGCGGAGGAGCGCTTACCGGCT 977

QY 210 CAGGCGCACTTCTCCGAGAGACCTGACCTTCCCGGAGGAGGAGCCCGGAGTTCC 269  
 DB 978 CAAAGGCACTGATCCGCGAGAGGTGAGAAACAAAGAGAGCCGCTGCCAAGAGGAC 1037  
 QY 270 CAGCGAGCAAGACCGGCGCAACAGCCCGACAGCCGAGGCTGAGAGTGGCGGAGCA 329  
 DB 1038 CCCCCAGAGAGCGGCGGAGCTTACTTGGAGACCCGCGCACTCATGAGAGACTGGGCA 1097  
 QY 330 CCCCCGAGAGAGCGGCGGAGCGGAGGAGCGAGGAGCACTTGAACCTTCCCCAGTACCT 389  
 DB 1098 GGTTCAGAGCTTGTGCTGCGGAGAACCTGCGGCGGCTGTTTCCGAGAGGCGCTGCGCCG 1157  
 QY 390 GTGAGAGCGCCCGCTGTGTGAGATCAAGGTGGCGGCGAGATCAAGAGAGCCCTGTGTGA 449  
 DB 1158 CAGCATCCGACCTCTGGCGGCTTGGGCTCCAGCTTGGCACCATGAGAGCTCGGAGAGCA 1217  
 QY 450 CACCGGCGCGGAGAGACAGCTGTGTGAGAGAGATGAGCTGCGCGGAGAGTGAAGCCCA 509  
 DB 1218 CCGCGAGCGCCAGACACAGCGCCCTCGAGAGCTTTCAGACCGGCTGGGAGAGAGTCTG 1277  
 QY 510 GATGATCGGCGGATCGGCGGCTTTCATCAAGGTGGCGCGAGTACAGACAGATCTGATCGA 569  
 DB 1278 GCGCTAGCGCGAGATCCGCGGAGATACCGACAGAGCTCTGCGAAGAGAGTGGC-- 1335  
 QY 570 GATCTCGGCGAAGAGGCGCATCGGACCGTGTGATCGGCGCCACCCCGTGAACATCAT 629  
 DB 1336 -TCCGCGAAGCGCTGGCCCCAGCGCCCGCGCTCGAGCGGCGCGGAGAGAGCCCT 1394  
 QY 630 CCGCGCGAAGATGCTGATCCAGCTGGGCTGACCTTGAACTTCCCATCAGCCCATCGA 689  
 DB 1395 CG--GCGCTTTCAGACCGTCCGCGCGCGCTGAGAGTCTTGGCGCCGAGAGTCAATCA 1451  
 QY 690 GACCGTCCCGGAGAGCTGAAGCGCGGAGCATGAGCGGCGCCCAAGAGTGAAGAGTGGCCCT 749  
 DB 1452 GTCTTACATCATATCCATGTGCTGAGGCGCGCGAGAGCTTGTCCGCGCGGTACTGGC 1511  
 QY 750 GACCGAGAGAGAGATCAAGGCGCTTGAACCGCATCTCGAGAGATGAGAGAGAGGAGCA 809  
 DB 1512 CCGCGAGAGCGGCGCTGATGAGACTGACCGCGGCTGGGAGAGATCGGCGTGGCGCT 1571  
 QY 810 GATACCAAGATGGCGCCCGAGAACCCCTTACAAACATCCCGTGTGGCCATCAAGAGAA 869  
 DB 1572 GCTGAGAGACCAAGAGAGTGAAGCGCGCGACACATCTGTGAGAGAGCT--GCTCGC 1628  
 QY 870 GGAAGAGACCAAGTGGGCGAGGCTGTGAGATTCGCGAGAGTGAAGAGAGAGAGCA 929  
 DB 1629 CGAGCCCTCTTACCGGCGCTGTGCGGCTGCGCGGCGAGAGTCAAGAGAGTCAATGCTCG 1688  
 QY 930 CTCTGTGAGAGTGAAGCTGGGATCCCGACCCCGCGCGCTGAGAGAGAGAGAGCGT 989  
 DB 1689 CTACTCCGACTCTCCAGTGTGGCGGTATCACACAGCCAGTGGAGAGATCCACCGCGC 1748  
 QY 1749 CAGGCGCGGCTGCGGAGCTGCGGCGCGCACCGCTACCGGCTGAGAGAGAGAGAGCGT 1808  
 DB 1050 GTACACGCGCTTCAACCATCCCGAGATCAACAGAGAGAGAGAGAGAGAGAGAGAGT 1109  
 DB 1809 CCGCGGAGGAGCTGTGCGGCGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 1868  
 QY 1110 CAAAGTGTGCGCCAGAGGCTGAGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1169  
 DB 1869 CTGAGGAGAGCTTGAAGGAGAGATCAAGGTCAACGAGAGAGAGAGAGAGAGAGAGAG 1928  
 QY 1170 GATCTGAGAGCTTTCGCGCGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1229  
 DB 1929 GTACTCTATCCCGCGCTTCCGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1988  
 QY 1230 CGTGGGAGAGAGCTTGAAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1289  
 DB 1989 GAGCTTCCGCTTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2048  
 QY 1290 CCGTGTGCGCTGGGAGCTTCAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1343

DB 2049 CCGAGTGAAGTGTCTCTCCAGAGCGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAG 2108  
 QY 1344 CTTCCTGCGCATGAGCTGACACCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1401  
 DB 2109 CGAGCTGCGAGACTTCTTCTGAGCTTCCAGAGAGAGAGAGAGAGAGAGAGAGAG 2166  
 RESULT 12  
 US-11-058-727-5  
 ; Sequence 5, Application US/11058727  
 ; Publication No. US20050261483A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Andre R. Abad  
 ; APPLICANT: Ronald D. Flanagan  
 ; APPLICANT: Rafael Herrmann  
 ; APPLICANT: Theodore W. Kahn  
 ; APPLICANT: Albert L. Lu  
 ; APPLICANT: Billy Fred McCutchen  
 ; APPLICANT: James K. Presnall  
 ; APPLICANT: James F.H. Wong  
 ; APPLICANT: Cao-Guo Yu  
 ; TITLE OF INVENTION: Genes Encoding Proteins With Pesticidal  
 ; TITLE OF INVENTION: Activity  
 ; FILE REFERENCE: 35718/287809  
 ; CURRENT APPLICATION NUMBER: US/11/058,727  
 ; PRIOR FILING DATE: 2005-02-15  
 ; PRIOR APPLICATION NUMBER: 60/391,786  
 ; PRIOR FILING DATE: 2002-06-26  
 ; PRIOR APPLICATION NUMBER: 60/460,787  
 ; PRIOR FILING DATE: 2003-04-04  
 ; PRIOR APPLICATION NUMBER: 10/606,320  
 ; PRIOR FILING DATE: 2003-06-25  
 ; NUMBER OF SEQ ID NOS: 134  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 5  
 ; LENGTH: 2010  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; NAME/KEY: CDS  
 ; LOCATION: (1)...(2010)  
 ; OTHER INFORMATION: Matize optimized Cry1218-1  
 ; FEATURE:  
 ; NAME/KEY: misc. feature  
 ; LOCATION: (0)...(0)  
 ; OTHER INFORMATION: mol1218-1  
 ; US-11-058-727-5  
 Query Match 3.5%; Score 85.2; DB 7; Length 2010;  
 Best Local Similarity 43.5%; Pred. No. 7.6e-06;  
 Matches 491; Conservative 0; Mismatches 633; Indels 6; Gaps 2;  
 QY 197 ACTGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 256  
 DB 881 ACCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 940  
 QY 257 CCGGAGAGTCCCGAGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 316  
 DB 941 TGAAGTGTCTCTATCGAGCTTGTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1000  
 QY 317 TCGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 376  
 DB 1001 CCGCGTGTATCCGCGCGGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1060  
 QY 377 CCGAGATCAACCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 436  
 DB 1061 AGTCCGCTTCAATCTCTCCGCGGCTGATCATCGGAGAGAGAGAGAGAGAGAGAGAG 1120  
 QY 437 AGGCGCTGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 496  
 DB 1121 ACCACGCGGTGTCCGCGGCTCAACCTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1180

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QY 497 AGTGAAGCCCAAGATGATCGGCGGAGTTCATCAAGTTCGCGCAGTACGACC 556
DB 1181 ACTCCACCTCCACCTTCGATTCACCACTACGACATCTCAAGACCTCTCCAAAGACG 1240
QY 557 AGATCTGATTCGATCTGCGGCAAGAAAGCCATCGGCAACCGTGTATCGGCCCAACC 616
DB 1241 CCGTGTCTCTCGCAT--CGTGTACCCCGGCTACACTACATCTTCTTGGCATCCGG 1297
QY 617 CCGTGAACATCATCGGCGGCAAGTCTGACCCAGTGGGCTGACCTTGAACTTCCCA 676
DB 1298 AGGTGAAGTTCTTATGATGTAAACAGTCAACACCCGCAAGACCTCTCAATACAC 1357
QY 677 TCAGCCCCATCGAACCGTGCCTGTGAAGTGAAGCCCGGATGAGAGGCCCAAGTGA 736
DB 1358 CCGTGTCAAGAGCATCATGCTGCTCCACCCGCACTCCGAGCTCGAGCTCCCGCGAGA 1417
QY 737 AGCAGTGGCCCCCGACCGAGGAAGATCAAGGCCCTGACCGGCATCTGCGAGAGATGG 796
DB 1418 CTTCCGACCGCCCACTACAGATCTCTTCCACCGCTCTGCGCATATCACTCCATCC 1477
QY 797 AGAAGAGGCGCAGATCATCAAGATCGGCCCCCGAGAACCTCTACACCCCGTTCG 856
DB 1478 CCGCCACCGGCAACACACCGGCTCGTGCCTGTCTCTGAGACCCACCGCTGCGAG 1537
QY 857 CCATCAAGAAAGAGACAGACCAAGTGGCGCAAGCTGTGAGCTTCCGAGCTGAACA 916
DB 1538 ACCTCAACACACCATCTACTCCGACAAAGATCAACCCAGATCCCGCGGTGAGAGTGGG 1597
QY 917 AGCGCACCCAGACTTGTGGAGAGTGAAGTGGGCACTCCCGCACCCCGCGCGCTGAGA 976
DB 1598 ACAACCTCCCTTGTGTCGCGTGTGAAGGAGCCCGGCAACCGGCGGAGACTCTTCC 1657
QY 977 AGAAGAAAGAGCGTGAACCGTGTGGAAGTGGGCGCAAGCTTCAAGCGTCCCTGAGC 1036
DB 1658 AGTACACCGCTCCACCGGCTCGTGGGCAACCTCTTCTGCGCGGTAGAGGCTGCGCC 1717
QY 1037 AGGACTTCGCAAGTACACCGCTTCAACATCCCAAGATCAACAGAGAACCCCGGCA 1096
DB 1718 TGGAGAGGCGCGGAGTACCGCGTGGCGCTCGCTCGGCACTGAGCGCGGACATCTGTC 1777
QY 1097 TCCGCTACAGTACAGTGTCTGCGGCGAGGCTGGAAGGAGCGGACGACATCTTCAGA 1156
DB 1778 TCCACGTGAACGAGCGCCAGTTCAGATGCCAAGACCATGAAACCCCGGAGGAGACTTCA 1837
QY 1157 GCAGCATGAC--CAAGATCTCTGAGGCCCTTCCGCGCCGCAACCCCGAGATCGTGAAT 1213
DB 1838 CTTCAAGACCTTCAAGGTGCGGAGCGCATACCACTCTCAACTTGGCCACGACTCTT 1897
QY 1214 ACCAGGCCCCCTGTAGTGGGAGCGACCTGAGATCGGCGAGACCGGCGCAAGATCG 1273
DB 1898 CCGTGGCTCTCAACACAACTCGGCGAGACCCCACTCCACCTCTCCGGCATCGTGT 1957
QY 1274 AGGAGCTGGCAGACACTGCTGGGCTTGGGCTTCAACACCCCGGCAAG 1323
DB 1958 ACGTGAACCGCATGAGTTCACTCCCGTGAAGAGACTTACGAGCGCGAG 2007

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RESULT 13
US-11-108-389-5
; Sequence 5, Application US/11108389
; Publication No. US20050261188A1
; GENERAL INFORMATION:
; APPLICANT: Andre R. Abad
; APPLICANT: Ronald D. Flannagan
; APPLICANT: Rafael Herrmann
; APPLICANT: Theodore W. Kahn
; APPLICANT: Albert L. Lu
; APPLICANT: Billy Fred McCutchen
; APPLICANT: James K. Prensail
; APPLICANT: James F. H. Wong
; APPLICANT: Cao-Guo Yu
; TITLE OF INVENTION: Genes Encoding Proteins With Peptidic
; TITLE OF INVENTION: Activity

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; FILE REFERENCE: 35718/291049
; CURRENT APPLICATION NUMBER: US/11/108,389
; CURRENT FILING DATE: 2005-04-18
; PRIOR APPLICATION NUMBER: 60/391,786
; PRIOR FILING DATE: 2002-06-26
; PRIOR APPLICATION NUMBER: 60/460,787
; PRIOR FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: 10/606,320
; PRIOR FILING DATE: 2003-06-25
; NUMBER OF SEQ ID NOS: 134
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 5
; LENGTH: 2010
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(2010)
; OTHER INFORMATION: Maltz optimized Cry1218-1
; NAME/KEY: misc_feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: mol218-1
US-11-108-389-5

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Query Match 3.5%; Score 85.2; DB 7; Length 2010;
Best Local Similarity 43.5%; Pred. No. 7.6e-06;
Matches 491; Conservative 0; Mismatches 633; Indels 6; Gaps 2;

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QY 197 ACTGACCGAGCGCCAGGCACTTCTTCGCGAGGACCTGCTCCCGAGGCAAG 256
DB 881 ACCCATGAGACCAAGGCCACACTCACCGGAGGTATACACGACCGCTGGCGCG 940
QY 257 CCGCGAGTTCCCGACGAGCAACCGGCGCAACGCCCAACCGGCGAGCTGCAAG 316
DB 941 TGAACGTGTCTCATGTGCTTGTGATGACAAAGGCCCAAGCTTGGGTATGAGT 1000
QY 317 TGGCGCGGCAACCCCGGAGGAGCGGCGCGAGGCGCAAGGCACTTGAATTCC 376
DB 1001 CTTCTGTATCGCGCGCGGCGGAGTGTGATACATCACCGGCTTACCGGTACACC 1060
QY 377 CCCAGATCACTCTGTGCAAGCGCCCTGTGTGAGATCAAGTGGGCGCAATCAAG 436
DB 1061 AGTCCGCTCATCTCTCGGCGGCTGATACATCGGCGGCGGCGGCGGCGGCGG 1120
QY 437 AGGCGCTGTGACACCGGCGCGGAGCAACCGTGTGAGAGATAGCTTCCCGGCA 496
DB 1121 ACCACCGCGTGTCCCGGCGCTCCAACTTCAGAGATGTACGCGACCAACGAACTCC 1180
QY 497 AGTGAAGCCCAAGATGATGGGCGCATCGGCGCTTCAACAGTGGCGCAATGAGACC 556
DB 1181 ACTTCACCTCCACTTGTGATTTCAACCACTGACATCTACAGACCTTCTCCAAAGAG 1240
QY 557 AGATCTGATCGATCTGCGGCAAGAAAGCCATCGGCAACCGTGTATCGGCCCAACC 616
DB 1241 CCGTGTCTCGACAT--CGTGTACCCCGGCTACACTATCTTCTTGGCATGCGG 1297
QY 617 CCGTGAACATCATCGGCGGCAACATGTGACCCAGTGGGCTGACCTTGAATTCCCA 676
DB 1298 AGGTGAAGTTCTTATGATGTAAACAGTCAACACCCGCAAGACCTCTCAATACAC 1357
QY 677 TCAGCCCCATCGAACCGTGCCTGTGAAGTGAAGCCCGGATGAGAGGCCCAAGTGA 736
DB 1358 CCGTGTCAAGAGCATCATGCTGCTCCACCCGCACTCCGAGCTCGAGCTCCCGCGAGA 1417
QY 737 AGCAGTGGCCCCCGACCGAGGAAGATCAAGGCCCTGACCGGCATCTGCGAGAGATGG 796
DB 1418 CTTCCGACCGCCCACTACAGATCTCTTCCACCGCTCTGCGCATATCACTCCATCC 1477
QY 797 AGAAGAGGCGCAGATCAACAGATGGGCGCGGAAACCTTACACACCCCGTTCG 856
DB 1478 CCGCCACCGGCAACACACCGGCTCGTGGCGGAGTCTCTGTGAGCCACCGCTCTGAG 1537

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|    |      |                                                                   |      |
|----|------|-------------------------------------------------------------------|------|
| QY | 857  | CCATCAAGAAGAGACGACACCAAGTGGCCGAAGCTGTGAGACTTCCGCGAGCTGAACA        | 916  |
| Db | 1538 | ACCTCAACAACCACTTACTTCCGACAAAGATCACCCAGATCCCGCGCTGAAGTGTCTGGG      | 1597 |
| QY | 917  | AGCCGACCCCAAGACTTCTGGGAGGTGACAGCTGGGCATCCCCACCCCGCGCTGAAGA        | 976  |
| Db | 1598 | ACAACCTTCCCCCTTGGTGGCCGCTGGTGAAGAGGCCCGCGGCACACCGGCGGGCAGCACTCTCC | 1657 |
| QY | 977  | AGAAAGAAGAGGTGACCGTGTGACAGTGGGGGACGCCCTACTTCAAGCGTGGCCCTTGAGG     | 1036 |
| Db | 1658 | AGTAAACCGCTCCACCGGCTTCCGTGGGACCTCTTCTTGCGCCGCTACAGGACTCTGGCCC     | 1717 |
| QY | 1037 | AGGACTTCCGGAAGTACACCGGCTTCAACATCCCGAGCATCAACAACAGAGACCCCGGCA      | 1086 |
| Db | 1718 | TGGAGAAGGCGGGCAAGTACCGCGTGGCGCTCTCGTACGCCACTGACGCGCAGCATCTGGTC    | 1777 |
| QY | 1097 | TCCGCTACCAAGTACAGCTGCTGCCCAAGGGCTGGAGAGGACGCCCCAGCATCTTCCAGA      | 1156 |
| Db | 1778 | TCCACGTGAACGACCCCGACGATCTCAGATGCCCAACACCATGAAACCCCGGCGAGACCTCA    | 1837 |
| QY | 1157 | GCAGCATGAC---CAAGATTCGTGAGGCCCTTCCGGCGCCGGAACCCCGAGATCGGATCT      | 1213 |
| Db | 1838 | CTTCCAAAGACTTTCAGAGTGGCGGCGGCATATACCACTTCAACTTGGCCACCGACTCTCT     | 1897 |
| QY | 1214 | ACCAAGCCCCCTGTACGTGGGCAACGACCTTGAAGTCGGCCAGCAGCACCGCGCCAGGATCG    | 1273 |
| Db | 1898 | CCCTGCGCTTCMAAGACAACTCGGCGAGAGACCCCAACTCCACCTCTTCCGGCATCTGGT      | 1957 |
| QY | 1274 | AGGAGCTCGGCAAGCACTGTCTGCGCTGGGGCTTTCACCAACCCCGACAAAG              | 1323 |
| Db | 1958 | ACGTGACCGCATCGAGTTCACTCCCGGTGAGAGAGCACTTACGAGGCGCGAG              | 2007 |

```

RESULT 14
US-11-075-185-2
; Sequence 2, Application US/11075185
; Publication No. US20050266434A1
; GENERAL INFORMATION:
; APPLICANT: REEVES, CHRISTOPHER D
; APPLICANT: JULIEN, BRYAN
; APPLICANT: REID, RALPH
; TITLE OF INVENTION: BIOSYNTHETIC GENE CLUSTER FOR AMBROTICINS
; FILE REFERENCE: 010099.03
; CURRENT APPLICATION NUMBER: US/11/075,185
; CURRENT FILING DATE: 2005-03-07
; PRIOR APPLICATION NUMBER: US 60/551,103
; PRIOR FILING DATE: 2004-03-08
; PRIOR APPLICATION NUMBER: US 60/568,290
; PRIOR FILING DATE: 2004-05-04
; NUMBER OF SEQ ID NOS: 61
; SOFTWARE: PatentIn version 3.3
; SEQ ID NO 2
; LENGTH: 14172
; TYPE: DNA
; ORGANISM: Sorangium cellulosum
US-11-075-185-2

```

|    | Query Match | Similarity                                                       | 3.3%         | Score 81.4      | DB 7         | Length 14172       |
|----|-------------|------------------------------------------------------------------|--------------|-----------------|--------------|--------------------|
|    | Best Local  | Similarity                                                       | 44.5%        | Pred. No. 3e-05 | Mismatch 676 | Indels 27; Gaps 5; |
|    | Matches     | 564                                                              | Conservative | 0               |              |                    |
| OY | 224         | TCCGCGAGCAGCTTACGCTTTCCCCCGAGGCAAGGCCCGCGAGTTTCCCAGCAGCACAAACC   | 283          |                 |              |                    |
| Db | 11205       | TACGGCGCATGCCCGCGGCACCCCGCAAAGCCCGCGCGCGCGCTTGCGCCCGCTGTTC       | 11264        |                 |              |                    |
| OY | 284         | GCGCCAACAGCCCCCACAAGCCGCGAGCTGCAGGTGCGCGGCGCAAAACCCCGCAGCGAG     | 343          |                 |              |                    |
| Db | 11265       | CCGCGCGCGCGCCCGGACGACTTCAGACACAGCAGTCGCGACGCGCTTTGCGCTGCGCGC     | 11324        |                 |              |                    |
| OY | 344         | CCGGCGCCGAAGCGCCAGGAGCACTTGAATTTCCCCAGATACACCTG---TGCACAGCGC     | 400          |                 |              |                    |
| Db | 11325       | TGCGGCTTGCGGCGCCGAGGCCAGAGCGGGTGCACCCGCGCGCTTCTCTTGCGCGGGCTCGGGG | 11384        |                 |              |                    |

|    |       |                                                                 |       |
|----|-------|-----------------------------------------------------------------|-------|
| OY | 401   | CCCTGGGAGCATCAAGATGAGGCGGCAATCAAGAGGCGCTGGTCAGACACCGGCGCG       | 460   |
| Db | 11385 | GCGGCGGCGCGCGCTGCGAGCTGCAACCGCGCGCTGGGCGACCTCGACAAAGCGCTGT      | 11444 |
| OY | 461   | ACGACACCTGTCTGAGAGGATGAGGCTGCGCGCAAGTGAAGAGCCCAAGATGATCGCG      | 520   |
| Db | 11445 | CGTTCACTCAACGACGAGCGCGCGCAACTCGCGGAGCTCGCGCGCGTACGTGCGCGAGT     | 11504 |
| OY | 521   | GCATCGGCGGCTTCATTCAGAGT---CGCCAGTACGACCAAGTCTTGATTCGAGATCTGG    | 577   |
| Db | 11505 | GAGCTCTCCGCGCTGCGGAGATTCTTCAGCGCACAGAGGTGCTGCGCTCTGTCAGAAAGAG   | 11564 |
| OY | 578   | GCAAGAGAGCCATCGGACCGGTCTGATCGGCGCCCAACCCCGTGAACATCATCGGCGCA     | 637   |
| Db | 11565 | CCATCGAGCGAAGAGGCGCTGACGCAAGCTGCTTTGAGGCCCGAGAGCGTGCCTTCG       | 11624 |
| OY | 638   | ACATGCTGACCCAGCTGGGCTGACCCCTGAATTCCCATCAGCCCATCGAGCCGTGC        | 697   |
| Db | 11625 | AGAGAGACGTGTGAGCTGTGTGCCAGCTCATAGAGCGCAAGGCGCTCATC---CCGAGC     | 11681 |
| OY | 698   | CCGTGAAGCTGAAGACCCCGCATGAGCGGCCCAAGGTGAAGCATGTGGCCCTTGACCGAG    | 757   |
| Db | 11682 | CCGCGCGGAGACCGCGCCGCGCAATGTGTGCGAGGTCTGTGAGGAGGTGCGCGCGCGC      | 11741 |
| OY | 758   | AGAGATCAAGGCGCTTGACCGCCATCTGGAGGAGATGAGAGAGGCGCAAGATCACCA       | 817   |
| Db | 11742 | TCGAGTCCGAGGTTCGCAACCGCGCTCTCGCGCTGCGCGGAGACAGAGAGCCGCG         | 11801 |
| OY | 818   | AGATCGGCGCCCGAGAACCCCTTACAGACCCCGGTGTTTCGTCATCAAGAAAGACAGCA     | 877   |
| Db | 11802 | TGCGCGTCTCTCAGAGAACCTCGATGGAAGGCGACCATCGCAAGACCTGAAGGGGATGG     | 11861 |
| OY | 878   | CCAAGTGGCGCAAGCTGTGTGAATTCCGCGAGCTGAACAAAGCGCACCCAGACTTGTGG     | 937   |
| Db | 11862 | ACGCGGAGCGGCGCGCGCTGTCCCGAGCAAAAGCTCATATTCTGTGGGAAACAGACGCGAA   | 11921 |
| OY | 938   | AGGTGCGAGCTGGGCGATCCCCACCGCGCGGCGCTGAAGAAAGAGAGCGTGAACGTGC      | 997   |
| Db | 11922 | GGCACGAGTGGAGAGTGTGACATCTGTGTGACCAAGTGGGCTCGATGGCGAGAGGCTGC     | 11981 |
| OY | 998   | TGACGTGTGGCGGACGCGCTTACTTACAGGTGCGCCCTTGACAGGACTTCCGCAAGTACACCG | 1057  |
| Db | 11982 | TCTACAGCTCATATATAGCGGCGATCTTGCCTGTCTGACAGTCTCTCGGACACCGGCTCC    | 12041 |
| OY | 1058  | CTTTGACCATCCCGACGATCAACAGAGACCCCGGCGATTCGGTACAGTACAAAGTGC       | 1117  |
| Db | 12042 | TCTTCTTTCGACACGAGAGTGTGTGAGGTGATCCGATGTCTGTGATTCGGTTCGAGTGC     | 12101 |
| OY | 1118  | TGCCCCAGGGCTGGAGAGGCGACGCCACAGCATTTTCCAGAGCAGCATGACCAAGATCTGG   | 1177  |
| Db | 12102 | TGTTCAAGGGCGAGCTTCGGGGGGGACCGACCACTCAACCGCGCGTGGGCTTACGCCAAG    | 12161 |
| OY | 1178  | AGGCTTCCGCGGCGCGCAACCCCGAGTGTGATCTTACAG---GCCCGCTGTAGCTGG       | 1234  |
| Db | 12162 | CGAATCTTATGAGCGACCCGAAAGAGCTGTCTCATCTGTATCAACGACTGTTCGAGG       | 12221 |
| OY | 1235  | GCAACGACCTTGAG-----ATCGGCGACGACCGCGCAAGATCGAGAGC                | 1279  |
| Db | 12222 | GCGGCAACCGCGAGAGAGCTGTGTGCGCGCATGGCGCAGCTCGCGGACAGACAGATGAGT    | 12281 |
| OY | 1280  | TGCGCAAGACCTGTGTGCGCTTGAGGCTTACACACCCCGCAAGAAAGACACAGAAAGAGC    | 1339  |
| Db | 12282 | CGATCTGCTGTGTGTGCGCTGTGCGAGCGCGGAAAGCCCTGTATCGACACAGAGATGGCGC   | 12341 |
| OY | 1340  | CCCCCTTCTGCGCCATGAGCTGACCCCGACAAGTGGAACCGTGTGCGGCCCATCGAGCTGC   | 1399  |
| Db | 12342 | AGAAAGTTCGCGGCGCTTGAGACCCCGGTCTTCGCTGTGACGCGCAAGAGCTGTCTGTAAG   | 12401 |
| OY | 1400  | CCGAGAGAGAGAGCTGACCCGTGAACGACATCCAGAGAGCTGTGGCGAAAGTTGAATTGG    | 1459  |
| Db | 12402 | TGTGTGAGCGGCTCATATCGAGGTCAAGGACCTTGGCCCGGTGTCTCGCGCGCGAGGCGCGT  | 12461 |
| OY | 1460  | CGAGCCA 1466                                                    |       |





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